

Manufacturers Record

Exponent of America



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Baltimore, Md.
JANUARY 25, 1923

Unduly Alarmed Over Negroes Leaving the South.

Many Southern people write us to say that the exodus of negro laborers is becoming an acute problem. The negroes, they say, are being enticed North, by offers of high wages for common labor in the big industrial centers. Elsewhere in this issue will be found a comprehensive discussion of the growth of negro population in the United States, and the trend of negro migration since 1860, which shows that negroes have been moving out of the South in increasing numbers over a long period of years, though this migration is not as great as is generally supposed. Neither is this migration of negroes wholly one-sided, for some Northern-born negroes move into the South, and after a period of over sixty years there is a net difference in negro migration in favor of the North and West of only 725,000 out of a total negro population of 10,500,000. Negro population is increasing very slowly in the entire country. The gain between 1910 and 1920 was only 6.5 per cent in the United States and only 2 per cent in the South.

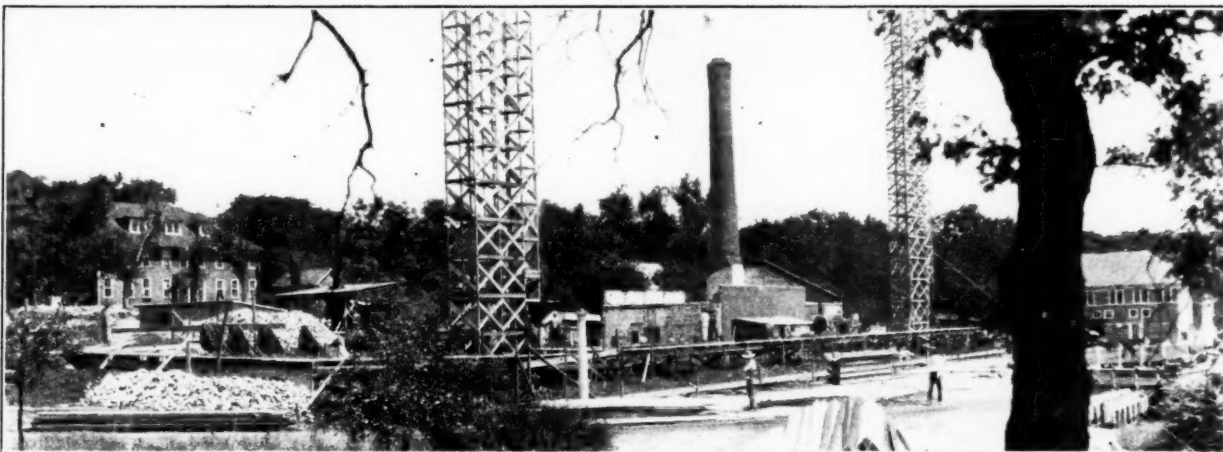
It might be worth while to study the other side of the picture. We believe that many conditions in the North and West, including the presence of too many foreigners for the comfort of native Americans, too much bitterly cold weather and other adverse conditions in contrast with the better climate of the South, the better opportunities there and few foreigners are causing many thousands of white people to move from the North to the South. The population trend is toward the South, just as is the investment trend of the day. All over the South there is evident a new vigor and a more enthusiastic view as to the outlook.

Cotton, when marketed under old methods, was a curse to the South. It impoverished rather than enriched that section. Loss of farm labor would be bad, of course, but a wider distribution of the negroes throughout the country would have its good side, worth considering. Moreover, previous phenomena of this sort have generally ended with the negro getting back to his own "home folks," sooner or later. He likes high wages and short hours, but he does not like the kind of work he has to do in the North to get them, nor the conditions under which he has to work outside of the South.

And the sun is warm in Dixie.



*The Bon Air Hotel, Augusta, Georgia. The Completed Exterior, December 15, 1922
McKim, Mead and White and Willis Irwin, Associated Architects.*



The Bon Air Hotel, Augusta, Georgia. The Site, Work Beginning June 1, 1922.

NOTE the dates on these progress photographs. Seven months to complete a hotel like the Bon Air in Augusta is a record. It was opened for guests on January 8. Place your next construction contract with an organization that, without sacrifice of economy, may be depended upon to deliver on the promised date.

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Manufacturers Record

Exponent of America

JANUARY 25, 1923

Volume LXXXIII

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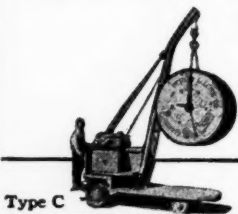
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"THERE IS A WITHHOLDING WHICH TEND- ETH TO POVERTY."

OFFICIAL announcement has been made that the "Sun-
maid Raisin Growers" of Fresno, Cal., have appropriated
\$2,750,000 for an advertising campaign, all of it to be handled
through one Chicago advertising agency. There is no wonder
that California raisin growers and citrus fruit growers and
other interests have so enormously expanded when we take
into consideration the spirit with which they carry on their
publicity work. Here is one raisin industry which appropri-
ates for one year's advertising \$2,750,000! If some of the
great railroad corporations who have empires of undeveloped
wealth tributary to them were to spend one half of that
amount for advertising in any one year the financial people
that control them would die of a sudden heart attack. Per-
haps, however, this would not be a serious loss to the country,
for there is needed in railroad and financial interests a very
much broader conception of what the power of publicity
rightly handled can do, and some new blood could thus be
secured.

If the railroads of the South, for instance had expended
during the last ten years an amount of money even approxi-
mately matching that of the California raisin growers, they
would have created a volume of business which would have
enriched the tributary country and enriched the railroads.

Creative, constructive geniuses, men of vision, realize that
the way to achieve things is to dare to do things. It is true
today as when the inspired writer uttered it, that "there is
a withholding which tendeth to poverty," and the with-
holding of broad publicity work has tended to the poverty
of many industries, many railroads, and many sections.
The railroads say they cannot afford to spend money freely.
As a matter of fact their failure to do so has brought about
their present poverty and they can only get out of it by
following the example of the California raisin grower. Other
interests as well as the railroads need to heed the same
lesson.

THE NATIONAL ASSOCIATION OF MANUFAC- TURERS TAKES A RIGHTEOUS STAND AGAINST LAWLESSNESS.

EVERY outburst of the mob spirit, whether it be in the
massacres committed at Herrin, Ill., the even more
fearful massacres at Mer Rouge, La., and the lynching of a
man at Harrison, Ark., by a mob of a thousand people on the
ground that he and other union laborers had violated the
law by seeking to destroy railroad property, indicates the
amazing lack of a sense of responsibility to law which is
abroad in the land.

Wherever crimes of this kind are committed, whether by
union labor or by those who oppose union labor, by hooded
mobs as at Mer Rouge, or by a mob such as that at Harrison,
Ark., which wreaked its vengeance upon those who were
charged with having destroyed the railroad property, those
who are responsible are to the extent of their ability de-
stroying civilization itself.

As we have repeatedly said, the mob which lynches a man
—it matters not how great may be his crime nor how well
deserved the death penalty—commits a greater crime than the
criminal lynched; for every man responsible for the actions
of a mob in lynching is helping to lynch the very sovereignty
of the State, to break down all law, and utterly destroy civi-
lization. No man who joins in this mob spirit has any right
to expect that his sons and daughters and his neighbors will
not have their moral character sapped and their regard for
law destroyed. When one law can be thus violated by men,
even if they are men who claim that they are upholding law,
any other law may be violated by some other body of men,
or some individual criminal.

Men who are today carrying on a campaign of evil by
tarring and feathering, or beating and killing people who have
done what they regard as criminal acts, or whose politics do
not harmonize with what they want, are in the sight of man
and God criminals themselves, it matters not how pious
they may think they are or claim to be. There can be no
possible just excuse in this country for the work of such
mobs. This must be a country of law and order, or else it
will rapidly go to ruin, as Russia has done.

In view of this situation President John E. Edgerton of
the National Association of Manufacturers, one of the out-
standing business and religious leaders of the South, and
indeed of the country, issued on January 17 a copy of a
telegram which he had sent to Governor McRae of Arkansas,
following that with an expression of his views as President
of the National Association of Manufacturers on law viola-
tion.

President Edgerton's telegram to Governor McRae was as
follows:

"The lynching Monday night of union workmen at Har-
rison, Ark., by citizens (reported in the daily papers as
farmers and others) is an exact parallel with the mob crime
at Herrin, Ill., on June 22, when a group of non-union men were
murdered by union strikers. It warrants the severest con-

demnation and censure by the general public; and the immediate official investigation by the authorities of the state will be warmly applauded by all citizens who believe in the law of the land.

"The National Association of Manufacturers believes in the principle of the Open Shop—the right of a man to work where he pleases without dictation, without molestation and certainly safe from murder, whether that man belongs to a labor union or does not belong to a labor union. The laws of the land provide proper punishment for all violations including sabotage, imperilling the lives of the public and murder, and punishment for violation of these and all laws must always be left in the hands of the proper public authorities."

In making public the telegram, Mr. Edgerton said:

"The newspaper reports from Harrison state that a mob of over a thousand persons hanged a member of the striking shopmen's union, flogged prominent persons, ordered others to leave town and burned the union headquarters. These actions followed the destruction of railway property, including an epidemic of bridge burning which threatened to isolate the town.

"Where violence occurs and where law is violated the National Association of Manufacturers favors full punishment of the offenders. But that punishment must be such as the laws of our land provide. We favor law and order and then rigid enforcement.

"At Herrin, men who were trying to learn a living in a lawful manner were massacred. The National Association of Manufacturers demanded the capture and punishment of those guilty. To just the same extent do we urge the arrest and conviction of those guilty of mob violence and disregard of law in Arkansas. The actions of the Arkansas mob are parallel in spirit, if not in extent, to those of the Herrin murderers. It is true that in Arkansas the man hanged is said to have himself violated the laws, but by taking the law into its own hands, the mob simply added violation to violation. Private individuals must leave to duly constituted authorities the protection of life and property and the punishment of the guilty.

"Our Association believes absolutely in the Open Shop, which sustains the constitutional guarantee of a man's right to work regardless of affiliation or non-affiliation with labor organizations. It is fair play. We believe the laboring man has as much right to organize as anyone else; but we believe he has no right to impose his will on others any more than other organizations have a right to impose their will on others. And in the same spirit we demand the punishment of private murderers of union men just as strongly as we demand the conviction of private slayers of non-union men."

It is needless to say that the MANUFACTURERS RECORD heartily endorses every statement made in the telegram and in President Edgerton's announcement in connection therewith.

If railroad employes on a strike at Harrison were guilty of the crimes alleged against them they should have been tried legally and given an opportunity to defend themselves. It matters not how great may have been the feeling of the community aroused by the dynamiting of bridges and the destruction of locomotives, there was no justification for the criminality of so-called responsible people who without legal authority sought to punish these men. It is true that bridges had been dynamited, that locomotives had been made useless, and that there was abroad along the line of that road a spirit of destruction. It is altogether probable that the railroad strikers were responsible for this whole condition, but even if they were to the fullest extent, their criminality was not as great as that of the mob who wreaked its vengeance upon them. If the charges against them were true, they were criminals and should have been punished, but they should have been punished legally.

The seed of disregard of human life and of law and of morality were sown broadcast in Harrison and the surrounding country by the mob which may have been composed of some people who claim to be honorable, intelligent men. No criminality can justify the mob spirit and mob vengeance. There may have been in some of these mobs men who profess to be Christians, and men of honor and men of affairs. If so, they dishonored the profession they made, they sowed the seeds which may fructify in the destruction of all property

and all honor; and no excuse that men can make justifies their action.

The awful murders at Mer Rouge, La., the unspeakable atrocity of hooded men killing other men and sinking their bodies in the lake, even if the fearful reports of torture should be disproven, are the natural and inevitable outcome of the mob spirit which has been gaining strength in this country, and of the spirit of lawlessness which permits men to band together in secret conclave to punish those who are not doing according to what they desire to be done, whether in politics or in other matters.

Even the bootlegger, always a murderous criminal at heart, is not a greater criminal, nor is he so dangerous to the welfare of the country, as is any secret organization which illegally, in secret seeks to destroy him and his traffic. That is a part of the Government's work. It must be done legally; and every illegal move made for the punishment of criminals is a move made for the destruction of civilization. Good men must have the moral courage and backbone to stand out openly and uphold law and punish criminals and not hide behind a mob spirit or a mask for fear of personal dangers.

GERMAN LEADERS RESPONSIBLE FOR GERMANY'S COLLAPSE.

IN line with what the MANUFACTURERS RECORD has often said about the situation in Germany, by which the big industrial leaders and the capitalists of the country, disregarding all honor and morality, are enriching themselves at the expense of the honor of Germany, is a statement from the New York Wall Street Journal, which says:

"A limited number of immensely wealthy financiers and industrialists, bankers who control the substantial financial business of Germany, captains of industry like Stinnes who direct her production outside of the raw materials produced by the farms, are in a position today to guarantee Germany a far larger gold loan than anything hitherto proposed. Being utterly devoid of principle, sportsmanship, pride in national reputation for veracity and solvency, these interests have laid out for themselves a plain course, looking to the ultimate extinction of all claims for reparations. They mean to pay nothing. When that solution has been accepted their capital will be returned to Germany, the mark and the internal debt alike will be wiped out, the state and municipal debts will be scaled down to nominal figures, and Germany, within five years, will occupy the strongest financial position in Europe.

"To do this they must be able to supply raw materials from the outside, to sell the finished product in a world market at the gilt-edged exchange rates their capital in New York and elsewhere can command, conducting production in Germany on a paper basis which must ultimately ruin the worker and the farmer but will make them fabulously rich. In the Ruhr district at least this humane process of arteriotomy will be no longer possible. Germany is not going to war about it. She has not the means, she has not the pretext, and so far as her own working people are concerned, she has not the inclination."

"WHEN SHE SAYS SO, IT MUST BE SO."

The Waukesha National Bank.

Waukesha, Wis.

Editor Manufacturers Record:

I have been reading the MANUFACTURERS RECORD lately with great interest because of its splendid editorial matter on various topics. They are written with a comprehensive grasp of fundamental things and in a spirit of justice toward all. Your Thanksgiving and Christmas editorials were especially fine. Mrs. Frame said so, too. When she says so, it must be so.

God bless you and your good work!

ANDREW J. FRAME.

Mr. Frame is a new subscriber to the MANUFACTURERS RECORD but far off in Wisconsin he finds it of intense interest. How much greater should be its interest to every Southern banker and every other Southern business man.

SOME SHORTCOMINGS IN THE COAL COMMISSION'S REPORT.

IN a report of the United States Coal Commission addressed to the President and Congress the statement is made: "We find that in the bituminous industries since 1890 the mines have averaged over the country as a whole only 213 days out of a possible working year of 308 days." The same report takes the ground that with over 600,000 miners, the industry is overmanned by probably 200,000 men.

We are rather surprised that John Hays Hammond and George Otis Smith, who are thoroughly familiar with mining conditions, whether the other members of the committee are or not, should have signed such a statement, for there are not 308 "possible working days" in a calendar year for mining operations. Eliminate Sundays and we have 313 days, but the list of national and state holidays is constantly increasing, and is already a heavy drain on production. Christmas and January 1 cannot certainly be counted as possible working days, since they are both holidays universally observed as far as possible in business operations, and between December 25 and January 1 a very large proportion of miners always want to take as much holiday as possible, and in the days when liquor flowed freely they were usually idle a large part of that time. Washington's birthday, Fourth of July, Labor Day, Columbus' birthday, and a whole string of holidays bring the real working days of a year far below the 308 mentioned in that report, which the public will swallow without question, always gulled by so-called official documents.

It must also be borne in mind that formerly it was true and possibly still is, a universal custom in many mines for all of the men to take a full day's holiday whenever a funeral occurred in the community, and sometimes big mines have been closed down because white and black miners alike took an all day holiday on account of the funeral of a negro baby.

But even if there were the number of days which this committee reports as working days, it should be borne in mind that in a total of between 600,000 and 700,000 miners, white and black, all ages and all nationalities, there is always a very considerable proportion of men who are on the sick list. There are others who want to take a few days' rest, and none of these men, with rare exceptions, ever care to work steadily, day in and day out.

The statement, therefore, that there is a large surplus of coal miners is only partly true. There is a nominal surplus; and this is true of nearly all large industries, for the number on the pay roll is much larger than the number which daily report for work. A considerable allowance must always be made in a big plant for those who are absent by reason of sickness or for other causes. If 400,000 men actually working every business day of the year could produce the coal that was needed for the country's consumption, a margin of at least 100,000 would be actually needed on the payroll to enable the plants to run to capacity, since a large proportion would always be away.

It is stated that "the country has never been able to absorb in a year more than 579,000,000 tons of bituminous coal; the present capacity of the mines is well above 800,000,000 tons." That is also a serious error, in the impression conveyed, even though the figures may be correct, because the consuming capacity of the country, with all its industrial interests and railroads in full operation, would be very much larger than in the year of the largest consumption heretofore recorded; and the estimated capacity is based on the full capacity if all plants were running on full time, whereas that is a physical impossibility.

No industry of any kind can keep all of its plants running to the full rated capacity. For instance, the capacity of the

iron and steel plants of the country far exceeds the output, because furnaces have to be refined and rebuilt, and steel plants shut down for repairs. It is an impossible proposition for any plant to run every hour at full capacity. Coal mines must close at times for repairs and the rated capacity does not take these facts into consideration. It would be well, therefore, to dismiss entirely from a report of this kind the thought that the rated capacity is the real ability to produce. The maximum production might not exceed the consumptive demand under normal business conditions with the expanding possibilities of our industries. The mere suggestion that there are 308 working days available for mining operations is so unwise that serious-minded men, seeking to advance the country's welfare by giving actual facts to the public, should not have made a statement so thoroughly misleading.

The coal trade has had to suffer much misrepresentation and many hardships, and to labor under many disadvantages. It should not be so misrepresented as to actual conditions as would be indicated in the statements which we have criticized. In this report it is also said:

"As for the public, the cost of maintaining an overdeveloped industry is reflected in the high price of coal. We do not know accurately the extent of the burden, but it may well be measured by the cost in keeping in the industry an excess of perhaps 200,000 miners and their families and the excess investment in mines."

As we have indicated, there is no excess of 200,000 miners. If the number of miners could be automatically reduced to 400,000 the mines would be so poorly equipped with labor that the cost of coal would far exceed the prices which have prevailed, and the elimination in this way of 200,000 miners would be more disastrous to the country than can be easily estimated. To have only 400,000 miners on the payroll instead of 600,000 would mean the mines would be inadequately manned, and even if they were worked under the best conditions, steady employment and a full supply of cars, they could not with only 400,000 men produce the coal needed to meet consumptive requirements of the country.

Referring to this situation the report says:

"The Commission is convinced that there can be no permanent peace in the industry until this underlying cause of instability is removed;" and to this it adds an intimation of a criticism against the building of railroads into new coal territory or the opening up of new mine fields, in order to increase railroad traffic and the development of new mines by large consumers.

Here is in effect a distinct suggestion by a supposedly reputable committee, (although when it was organized the MANUFACTURERS RECORD pointed out that there was only one man on the committee who had had long and intelligent experience connected with coal mining), to the effect that expansion of this industry should be halted; that men desiring to open coal mines should not be permitted to do so; that large consumers—Henry Ford, for instance—should not be allowed to buy coal properties and develop a supply for their own needs. It is difficult to understand how thinking men could ever have advocated such a do-nothing policy. Carried out logically it would prevent the building of a cotton mill until there was an assured demand for every yard of cotton goods products that could be made over all the years in sight; it would prevent a man from cutting the lumber on his own land unless there was an assurance that every sawmill then in operation would have an ample demand if run to full capacity; it would prevent the farmer from sowing an acre in wheat unless he was certain that there was already a demand for every bushel of wheat that could be produced; it would say to the cotton grower: "We will figure out exactly how many bales of cotton the world can consume, and we will suggest to you to limit your cotton acreage to this known

demand based on the assumption that every acre will produce the fullest possible yield, taking nothing into account for bad crop years, for boll weevils or any other troubles, and if you have in the aggregate more labor than is required to raise a given amount of cotton, on a given acreage, producing to its fullest rated capacity, then that labor must be shifted to something else, or you are burdening the country with a heavy cost of an 'over-developed industry.'"

Another illustration of the incorrectness of this report, viewed from many standpoints, is the statement that "the coal mining industry, in point of numbers employed, outranks any single manufacturing industry and stands next to transportation and agriculture. Approximately three-quarters of a million men are employed in this industry." The last census report shows that the coal mining industry does not outrank in number of people employed every other single industry. The textile interests employ 1,600,000 operatives and iron and steel and their products 1,585,000; lumber and its manufactures 839,000, each one of these industries showing a very much greater number of employees than the coal mining industry. The capital invested in the entire coal mining industry is a little over one-third of the amount invested in textiles and their products, a fraction over one-fourth of that invested in iron and steel, about one-half as much as invested in food manufacture and its products and considerably less than the amount invested in lumber and its manufactures.

However important the coal mining industry is to the country as one of the primary interests of the nation, its importance should not be overstressed and there is no more reason why the nation should handle the coal business than there is why it should handle iron and steel or textiles or lumber or foodstuffs. There has never been any real need for Government regulation of the coal industry other than to see that law and order are maintained and that the men who want to work are protected in that right of every American citizen, without molestation from any union organization of any kind. Had the Federal Government and the states made absolutely safe the right of every coal miner to work and had protected the railroads against any injury to property or person there would have been no need for this coal commission or for any other Government attempt to direct or control the coal industry. Government management is always inefficient. It was proven so to the extreme in the handling of the railroads. No sooner does a man become a member of some Government commission than he falls under the spell of the bureaucratic methods prevailing, with endless red tape, which hamstrings all business management. If the Government will take its hands off the railroads and repeal the Adamson bill and other restrictive legislation of that kind and guarantee life and liberty and protection from all who by violence seek to control the coal or the railroad interests, there would be no need for Government discussion of the coal industry, and the commission which begins its public work with a report brimful of errors, would have no reason for its existence.

Such is the natural and inevitable final analysis of the argument of this commission as to coal. How intelligent men, whether they know anything whatever about the coal trade or not, could have been persuaded to sign such a document we confess we are at a loss to understand. However, as a whole, it might be said of this report that "its true things are not new things, and its new things are not true things." We have failed to find anything in the report among the true things that in any way whatever is new or of value.

THE INCREASED EXPORTS OF FARM PRODUCTS SINCE THE TARIFF BILL WAS PASSED.

THE KNOXVILLE SENTINEL of a recent date criticizing the MANUFACTURERS RECORD for its defense of the protective tariff, says:

"The MANUFACTURERS RECORD undertakes to make the fair prices for cotton an example and argument for protection, when it is the reverse. Cotton owes the good price quoted for it not to the tariff protection it refused, but to the boll weevil that cut down the crop and prevented over-production. Wheat and corn and other farm products which were protected with tariff duties as a sop to the Western farmers are going begging for buyers at prices below the cost of production in spite of Mr. Fordney's devoted services and specious promises. Why?"

Probably nobody would accuse the National City Bank of New York, with its enormous foreign financial interests, of being in favor of protection; but in its January financial summary of the situation that bank says:

"Of late buying for Europe has increased and the price of wheat is 20c to 25c higher than three months ago."

It will be noted that this advance of 20c to 25c in wheat has, according to the National City Bank, come about during the last three months. The Fordney Tariff Bill went into effect just a little over three months ago.

The record of exports of farm products during the three months in which the tariff has been in effect shows a very marked gain in our shipments of foodstuffs, and a steady tendency to advance in prices. Cotton is only one of the farm products that has advanced. The boll weevil influence has had some effect on cotton, but the boll weevil did not affect wheat and corn and other agricultural products that are going abroad in increasing quantity at increasing prices, and the boll weevil is only one factor in the advance in cotton.

The general prosperity which is coming about under the Fordney Tariff Bill is lessening the number of unemployed; indeed, it is making a scarcity of labor with better wages, and the result is an increasing demand by the people of this country for cotton goods and for food. Thus the farmer is getting, largely as an outcome of the prosperity created under the tariff bill, a better demand and a larger price for all products of every kind, and Europe is buying more freely at these higher prices.

The world always buys on a rising market, and always refuses to buy on a declining market.

There is poverty in some parts of Europe which is lessening the consuming power of the people, but there are other changes going on in Europe which are of tremendous moment and will increase the demand for all agricultural products, cotton, wheat, corn and provisions. Whatever may be the case with governments, European peasants have learned how to supply themselves with better foodstuffs than formerly, even though this may lessen the export power of some of these countries in furnishing food to the non-producing wheat countries. The European peasant is eating more wheat than he formerly did, and he is leaving less of what he produces for other parts of Europe to consume.

TAX EXEMPT SECURITIES ARE A BENEFIT TO STATES AND CITIES AND THE PROPOSED AMENDMENT AGAINST THEM SHOULD BE DEFEATED.

IF Secretary Mellon can find no better argument in favor of his scheme and that of President Harding to adopt a constitutional amendment against State tax exempt securities by individual states and communities, than one which he recently put forth, it would be well for him to abandon his effort. In his letter of recent date to the Chairman of the Committee on Banking and Currency of the Senate pressing his views in favor of this amendment, Mr. Mellon said:

"Tax exempt securities afford perhaps the most outstanding avenue of escape from the income surtaxes imposed by Congress, and their continued issuance is reducing the revenues and at the same time having a most unwholesome effect on the development of business and industry."

This is a rather amazing statement to come from the Secretary of the Treasury, a great banker, in the light of the present business conditions in the country. Tax exempt securities said Mr. Mellon "are having a most unwholesome effect on the development of business and industry." Let us examine the truth of that.

Our railroads are crowded to the utmost capacity of every car and locomotive, handling more business than ever before in the history of the country.

Our iron and steel interests which a year ago were running at about one quarter to one third capacity, are now running on the basis of about 80 per cent capacity, and the expansion of their business is limited only by inadequate transportation facilities.

Our cotton mill interests are more prosperous than they have been during the last year or two, and mills are running to full capacity with an eager demand for their products.

Our agricultural interests have seen a wonderful change for the better with an increase, due to the rising prices of the last few months, which means a gain of about \$2,000,000,000 for our farmers as compared with the prices they received for 1921.

Everywhere in every direction, indeed in the popular phrase of the hour it might be said "day by day in every way" our prosperity is increasing, **limited only by transportation.**

More money is being put into hydro-electric developments than ever before. Tens of millions are being expended for hydro-electro work in the South alone.

The announcement made recently of the building of a \$10,000,000 hotel in Atlanta is only typical of the spirit that is abroad everywhere.

We are moving onward and upward in business. We are hampered not by tax exempt securities, but we are hampered by lack of transportation only. That is at the present time practically the only thing that is holding back the country from a development which would surpass, but for inadequate transportation, any period of activity and prosperity which we have ever known.

And yet in the light of these facts, which neither Secretary Mellon nor any one else can deny, he talks about these tax exempt securities "having a most unwholesome effect on the development of business and industry."

Will Mr. Mellon please tell us in the light of the present business situation just how tax exempt securities are having an unwholesome effect?

If business was developing more rapidly than it is, how would the railroads handle it? Where would the labor come from to carry it on?

As a matter of fact, most of the arguments advanced in favor of an amendment to the Constitution forbidding the

issuing of tax exempt securities by states and cities and counties, have just about as much foundation in fact as Mr. Mellon's statement that these tax exempt securities are "having a most unwholesome effect on the development of business and industry," and their foundation is like the shifting sand, a foundation on which no substantial argument against tax exempt securities can be based.

This idea has caught public attention. It is being fathered by great financial interests in New York and elsewhere. If carried out it would enormously increase the cost to counties, cities and states of the money which they borrow for public improvements. They would have to pay a higher rate of interest, and public improvements, so essential to the welfare of the country, would be made more and more costly thereby.

It is better that a community should be able to secure money at a low rate of interest for building its schools and its highways than it is for that community to give to the Federal Government the right to tax its securities and thus make the cost of building schools and highways far greater to the local community than under the present system.

The money raised on these tax exempt securities has, on the whole, been wisely expended. It is enormously expanding the educational facilities of the country; it is building better highways, better streets, improved waterworks, better drainage systems, and is everywhere adding to the real progress of the people, creating more business, even when viewed from the strictly business point, than would be created by the imposition of Federal taxes on these securities.

If we disregard the importance of the individual states holding some rights, and disregard the tendency at Washington to keep on piling taxes on top of taxes, and concentrating in the Federal Government's bureaucratic operations all possible power to the disadvantage of the whole country, we must still recognize that the imposition of Federal taxes on state and municipal securities would largely increase the cost of every school building, the cost of every mile of road construction, of every municipal improvement made, and of every public building erected.

Moreover, it will be infinitely better for the country that the counties and cities and states shall have the right to sell their securities at the lowest possible rate of interest in order that they may carry forward their work at a low cost, than to give this privilege of taxation on these securities to the Federal Government.

Many banking interests handling industrial securities and those of public service corporations are protesting against tax exempt securities on the ground that it makes industrial interests and public service corporations pay a higher rate for money than they would otherwise have to pay. But that is a specious and false argument. Industrial operations and public service corporations are established by private capital for the profit which they make either in the handling of the securities and putting them on the market, or else for the profit in the management of these interests.

On the other hand, state and municipal securities are issued for the general benefit of states and communities without any thought of individual profit through the operation of the things created by this money. In one case it is the banking influence at work to sell securities intended for individual profit on the same basis as securities sold by a county or by a state for the profit of all the people, but not for individual profit. The difference is very wide. It is private profit versus public welfare.

There is no shortage of money at the present time for any good securities which are put on the market. They are being eagerly grabbed, and a billion or more of foreign securities have been sold in the American market, and the business of the country is increasing far more rapidly than are our

transportation facilities. And yet we are being told by Mr. Mellon that tax exempt securities are "having a most unwholesome effect on the development of business and industry." What a travesty on argument! What an unfortunate statement to be put forth seriously by a man of Mr. Mellon's financial ability, holding the responsible position of Secretary of the Treasury!

GOVERNMENT RAILROAD REGULATION HAS WELL NIGH RUINED THE RAILROADS WITHOUT BENEFIT TO THE PUBLIC.

Central Coal & Coke Company,
Kansas City, Mo.

Editor Manufacturers Record:

I have read the cover editorial in your issue of December 7 on the question of the railroad situation with a great deal of interest. I am wondering if the solution, viz., repeal of the Hepburn Bill so as to permit the railroads to function as any other business institution, has ever occurred to you, also if the suggestion that further consolidation of the railroads will not accentuate the situation rather than relieve it. In other words, I am a great believer that "necessity is the mother of invention" and if private initiative is permitted to function without regulation and control, that it will work out its own salvation, provided it is not further hampered by other drastic uneconomic laws restricting and restraining initiative.

As an illustration of the situation: We are trying to buy some steel shapes and forms delivered at Portland, Oregon. The cost of American steel shapes and forms laid down at Portland is \$4.30 per hundred. At the same time we are offered shapes and forms from Belgium delivered at Portland with duty paid at \$2.10 per hundred pounds. Naturally we prefer to do business in this country, especially in view of the fact that these shapes and forms must be fabricated and we would rather have them fabricated here. The railroads, however, are denied the privilege to meet water competitive rates without tearing down the whole fabric of the rate system. At the same time that they are denied this right, in order to supply car orders of the people on the Coast, the railroads are forced to haul the cars empty westbound where they could haul these same cars under load and thereby reduce the whole cost of transportation, as it is an axiom that it costs just as much to haul cars empty as loaded. I am giving you this thought for your consideration. Is not such a regulation asinine? I do not blame the railroad officials. They are put up against these impossible conditions. They must earn their fixed charges or go into the hands of the receiver. The Government fixes the wages they must pay their employees. The Government also fixes the freight rates on which they must move their traffic. If the Government fixes the rates too low they go into bankruptcy. If it fixes them too high, as has been the tendency during the last two years, the traffic is dried up with the consequence of bankruptcy again.

In 1906 the railroads of the United States bought more than 341,000 freight cars. Last year the freight car orders totaled only 23,346 cars, according to my figures, and this year up to November 25 they had ordered 139,257 freight cars. There has not been a sufficient number of cars built since Government operation began to replace the depreciated equipment, allowing nothing for the increase in traffic requirements. This has reacted and resulted in idle time for factories, mines and mills throughout our country. Idle time means increased productive costs. Increased productive costs mean increased prices to the public. Increased prices to the public mean increased cost of living, and increased cost of living with idle time results again in the necessity for higher wages, whether they can be paid or not, and personally I believe the whole thing is based on regulation and control without responsibility.

CHAS. S. KEITH,
President.

The foregoing letter is from one of the foremost business men of the West. It presents a phase of the railroad situation which is bound to command more and more attention as the problems of transportation increase.

Mr. Keith points out the fact that by reason of railroad rates and the high cost of things produced by these high rates, Belgium steel shapes and forms can be delivered on

the Pacific Coast at less than one-half of the price of the same products of American steel.

We fully agree with Mr. Keith that many of the regulations pertaining to railroad management are as he says, asinine. When the Interstate Commerce Commission years ago fought for the right to fix railroad rates the MANUFACTURERS RECORD vigorously opposed the movement and took the position which it has maintained ever since that the cost to the country by putting the right to fix rates in the hands of the Commission would cost the people of this nation far more than any benefits which they would ever receive. We have never seen any reason to change that opinion.

From the day when railroad management was practically taken from the hands of the men who were supposed to manage the roads, initiative, energy and creative constructive work on the part of officials has largely ended. It is well-nigh impossible for railroad officials, hampered by a thousand rules and regulations, to do any real constructive work. Their time must be largely given to complying with requirements of the Interstate Commerce Commission for the compilation of information or reports which keep thousands of clerks busy and add enormously to the cost of operation, and decrease enormously the constructive managerial power of the officials. To all intents and purposes railroads are tied hand and foot. The managers are about as badly off as are men who try to run a foot race with their legs encased in bags. The effort to make the goal may create laughter on the part of the onlookers, but the racers get nowhere and accomplish nothing of value to themselves or to the public.

Every new bit of legislation in state or national affairs to hamstring the railroads and their officials only adds to the difficulties under which the transportation interests of the country are laboring. When they might make low rates for the protection of trade when they see business being destroyed by foreign competition, as in the case mentioned by Mr. Keith, they have no right under the rules of the Interstate Commerce Commission to do so, and that body moves with such slow and measured tread that an opportunity is gone before a decision can be reached.

No railroad man has the right to cut red tape and act as men do in other lines of industry, and the more the country turns to legislation for controlling railroads and freights, the more it will pay the penalty of lessened transportation facilities in proportion to the volume of business.

It would be well worth the experiment if Congress would repeal the Hepburn Bill, the Adamson Bill and all other legislation which hampers railroads, and unshackle their management and turn them loose for creative construction work. Then we would once more see the kind of initiative and creative development which gave to this country nearly one-half of the railroad mileage of the world and the lowest freight and passenger rates in the world.

The more the Government has piled regulation on top of regulation through the Interstate Commerce Commission and in other ways, notably in such cowardly acts as that of the Adamson bill, the more the country has to pay in the way of lessened transportation and of higher cost of freights which enter into every line of business, retarding our material development and often putting us at the mercy of foreign competitors regardless of any tariff however high that might be.

It is time to wipe the slate clean and start afresh and see if we cannot get better transportation facilities under this freedom than we have, or are ever likely to have, under Government domination and control of rates. But railroad officials must display more judgment and a better recognition of public rights than they have done before they can hope for public favor.

HOW SOUTHERN CONCERNS CAN EXPAND THEIR BUSINESS.

G. L. MILLER & CO., of Atlanta and New York, who have been instrumental in placing large amounts of Southern mortgage bonds throughout all parts of the country, and in foreign lands, in sending an order through Mr. Willard C. Wheeler, the advertising manager, for a number of additional subscriptions to the MANUFACTURERS RECORD, write:

"We find that our Northern salesmen are intensely interested in your publication, and that it provides them a wonderful means of keeping in touch with the development of the South; and it is for this purpose that we wish these subscriptions."

Possibly no other concern in the country is working more vigorously or successfully to broadcast facts and figures about the South to investors in this and other countries than Miller & Co., who have drawn many millions of dollars into the South through this work. As they say their northern salesmen, who are carrying on the campaign, find the MANUFACTURERS RECORD intensely interesting and helpful in giving them the facts on which to base their arguments as to the possibilities of the South as a field for investment. If every business concern in the South sending its men out into other sections to handle any line of products made in the South, or to interest Northern and Western people in the opportunities of the South, would provide every traveling man in their employ with the MANUFACTURERS RECORD, the influence of their work would be increased many fold. The cost of these subscriptions would be infinitesimal as compared with the benefit of the arguments which would be provided to these salesmen, and the influence which this would have in selling Southern made goods, or in bringing men and money into the South.

Every railroad in the South fails of its opportunity if it does not equip every one of its traveling men, and indeed, its local agents with the opportunity to know the South and to intelligently discuss it.

The people of the South do not know their own country as they should, and business men, bankers, merchants, manufacturers, railroads and other big corporations, are leaving untutilized an almost limitless field for good if they fail to supply their agents and all their important employees with the facts which are to be found only in the MANUFACTURERS RECORD and in the Blue Book of Southern Progress, published by this company.

The spirit with which Miller & Co. go at their work in drawing capital to the South is illustrated in the fact that we published a leaflet a few weeks ago entitled "The South the Coming El Dorado of American Development", and no sooner had they studied a copy of it than they ordered 5000 for distribution among investors in other sections with whom they are in touch. This is the spirit that makes for success, individually and for a community.

If any one wants to know why Miller & Co. have found their business increasing so rapidly that they had to open an office in New York to handle it, he can find it in the spirit in which they are getting and supplying prospective investors and their representatives with every bit of information which they can get through the MANUFACTURERS RECORD and through the Blue Book of Southern Progress. Their success could be duplicated, to the good of the South and to individual prosperity by hundreds and indeed by thousands of other business concerns in this section if they acted with the energy, alertness and initiative of Miller & Co.

BANKS ORGANIZING TO FIGHT BRANCH BANKING AS A MENACE TO COUNTRY.

AT a recent meeting in Kansas City bankers from thirteen states, opposed to branch banking, formed themselves into an organization entitled "the United States Bankers Association Opposed to Branch Banking." A considerable sum was subscribed on the spot for carrying on the campaign.

A similar organization has been formed in Missouri, composed of over 1200 banks in that state, entitled "Association of Missouri Banks and Trust Companies Opposed to Branch Banking." This organization is making a very vigorous fight against the branch banking system. The dangers of branch banking are clearly pointed out in a pamphlet issued by the Missouri organization, which has headquarters in St. Louis. Mr. N. L. Flournoy, president of the Bank of Millington, Millington, Tenn., in a recent letter to that organization said:

"We are opposed to this feature of centralization in finances, just as your 1250 Missouri banking institutions are, and see therein the death knell to independence in banking."

Mr. Flournoy suggests that if the branch banking system should be developed in force in this country it would "mean that the little fellow will have to be content with the crumbs that may fall from the table of monopoly, and the small agricultural borrower will be compelled to face so much red tape and expense to get his financial requirements that he very much fears that the 30 per cent of the people of the country living on the farms will have to move to the cities to make a living." He adds:

"It is truthfully said that had it not been for those institutions styled country banks holding up the farmer during some of our financial crises, there would have been a worse debacle than that which occurred. We read of enormous dividends being paid in cash and stock in the city institutions, increases in salaries and bonuses being given. Such is not the case in the country banks, and you know the patron of these banks is the farmer. Country banks are reducing salaries and dividends to the minimum. Our paternal guardian, the Federal Reserve, claims to have saved the people (the interests) the immense sum of \$177,000,000 in one year on their par clearance plan.

"That sum might have been distributed throughout the country, where it belongs by the laws of justice and reason. We are sure it would do more good there than invested in marble palaces in the great cities, grown too great now by their absorption of the ruralites. We do not see or hear of improvements being made on farms, do we? No, and you will not as long as the people can see and know that the finances of the country are being more and more centralized in the cities. This branch bank scheme will but add to the disparity in finances as between the city and country."

With every point made in Mr. Flournoy's letter the MANUFACTURERS RECORD is in hearty agreement. The development of branch banking would mean the concentration of the finances of the country ultimately in a few great cities. Our views on the subject are expressed in a letter to the president of the Association of Missouri Banks and Trust Companies Opposed to Branch Banking, in which the editor of this paper said:

"I feel strongly inclined to congratulate the country that there is such a vigorous organization at work to arouse the nation to the danger of branch banking. Ever since the subject has been under active discussion the MANUFACTURERS RECORD has been vigorously opposing it on the ground that branch banking would develop a concentration of the financial power of the country inimicable to the best interests of the people of all sections. I regard even the threat of danger of branch banking as a menace to the safety of this country.

"The power which the great financial interests of the east have exerted over the control of the Federal Reserve System, making that system largely subservient to their interests, has threatened the safety of all financial interests of the country, because it has created a spirit which may result in the development of a hostility to the banking interests of the country which would be dangerous to the extreme.

"The individual banks scattered all over America have been

leaders in the development of their individual communities. Branch banks cannot, and would not if they could, carry on the same kind of local development. The local managers of these branch banks would be wholly subservient to the dictates of their employers at the financial centers, and the whole spirit of constructive, upbuilding banking which has made possible the marvelous progress of this country, would in my opinion be destroyed.

"I am, therefore, especially glad to note that your organization proposes to carry on a vigorous campaign to arouse not only independent bankers of the country, but the business people of the country at large, as to the dangers of branch banking. I wish you all possible success in your fight against the movement for branch banking fraught with such tremendous possibilities of evil as that system would, I think, inevitably develop.

"May I suggest that you present to the business people of the country, who are as vitally interested in this subject as are the individual bankers, the dangers of the proposed branch banking business, and make an aggressive fight in the country at large and in Congress to prevent the concentration of the entire financial system into a few great banks; for as one bank absorbs another, sooner or later the combination is absorbed by a bigger concern, and on ad infinitum, until as in England and in Canada a few great institutions would completely dominate the finances of the United States—and when that condition comes about the doom of that great prosperity and progress which have made America the wonder of the world, would have been written. Even the very form of our government would sooner or later have to give way before the dominating and domineering power of such financial forces concentrated in a few great cities."

To this could be added that the statement quoted by Mr. Flournoy to the effect that the claim which has been made that the Federal Reserve System has saved the country \$177,000,000 a year on their par clearance, and the somewhat similar statement issued by the United States Chamber of Commerce and doubtless based on the report of the Federal Reserve, are absolutely without foundation.

A very large proportion of the banking business of the country has for many years been done without any charge for exchange. Banks in the larger cities, and doubtless in many of the smaller ones, where the extent of the deposit of a customer justifies it, have not charged exchange; and to undertake to suggest that one-tenth of one per cent of the total volume of the banking business has been saved by the par clearance plan is dishonest on its face. Moreover, if by enforced par clearance even a considerable proportion of the amount named has been saved to the merchants and manufacturers of the country, it has been done by direct robbery of the banks who have been forced to remit on the par clearance system. No honest business man should desire to rob a country bank merely for his own profit. If he does not want to pay exchange, then let him require that his customer shall bear the cost of exchange. But to rob the country bank for the purpose of saving somebody else is not a saving to the country, nor does it encourage honesty. It is merely an enforced robbery of one man for the benefit of another man; merely a shifting of one man's property, without giving anything in exchange, into the pocket of another man; and that is not in any sense whatever a saving to the country.

A country bank has just as much right to charge exchange as any bank has to charge interest on loans; and if business men or the Federal Reserve System are so shortsighted as to destroy the property right of the country bank to collect exchange they may rest assured that the time will come when there will be developed a determination on the part of other interests to prevent all banks from charging interest.

The right of a bank to charge interest on loans is no more sacred than is the right of a country bank to charge exchange on checks which it handles. The destruction of this vested right on the part of country banks, if enforced, will ultimately lead to a fight equally vigorous against the vested right of any bank to charge interest. And there are more people in this country who would join in such a clamor as

that than the bankers have any conception of. Those who are demanding the enforcement of the par clearance system are treading on very dangerous ground, and when they least expect it an earthquake may shock them.

THE SAD DISGRACE OF MARYLAND, WHICH SELLS ITS HONOR TO RACE TRACK GAMBLERS.

THE Maryland racing commission has recently made its report to Governor Ritchie, showing that during last year \$49,000,000 was the amount of gambling carried on at the four race tracks in Maryland and that the State for licensing these race track gambling hells received \$673,673. Every honest, decent citizen in Maryland must hang his head in shame as he thinks of this good old state selling its soul to the race track gambling element of the country for money. Better would it be for Maryland, if the Federal laws permitted it, to have established in this state a duplicate of the Louisiana lottery, for the Louisiana lottery in its influence was angelic as compared with race track gamblers. The Louisiana lottery put into the state treasury a great sum annually as a license tax, but it did not bring into that state the crowd of gamblers, the race track touts, and the disreputable women that flock to Maryland to follow the race track. This is the kind of crowd that always follows race track gambling. It is a crowd whose presence is a disgrace to the state, a curse to everything that is good in Maryland.

The men in public or private life who by reason of the political influence of race track gamblers or for money received by the state or for any other reason uphold this disreputable work are doing their utmost to break down honor and morality among the young and old, to sow the seeds which must fructify in fast living, dishonored lives, embezzlement and all the sins for which the race track is the hothouse breeding ground. And sad to say, men and women of honor and intelligence in Maryland, deeply opposed to all of the evils of the race track, sit idly by with folded hands and make no move to wipe out of the state this degrading gambling business and to sweep out of public office every man responsible either directly or indirectly, for upholding these racing tracks.

A GREAT MACHINE WRONGLY USED.

Fourth and First National Bank,

Nashville, Tenn., January 12.

Editor *Manufacturers Record*:

I am greatly indebted to you for your kindness in sending me a marked copy of your issue of January 4, and have read with much interest the articles of Messrs. Cassel and Fisher. I concur entirely with their point of view and their conclusions.

I think the world has never seen, and I hope it will never see again, such a catastrophe as the deflation policy of our Federal Reserve authorities.

Yes, we took one of the mightiest of commercial engines and turned it around for destructive purposes, and created more havoc with it than the Germans did with their greatest guns. It was certainly a sad day for America when W. P. G. Harding was placed in control of that mighty machine.

JAMES E. CALDWELL, President.

Such is the view of a leading Southern banker who unceasingly fought for a change in management of the Federal Reserve System.

A SPIRIT WHICH, IF UNIVERSAL, WOULD MAKE FOR THE BROADENING OF THE DEVELOPMENT OF THE SOUTH.

MR. S. JOHNSON, superintendent of city schools, Orlando, Fla., in a letter to the MANUFACTURERS RECORD says:

"Your Blue Book of Southern Progress so appealed to me that I am making a present of a copy to each member of our senior class.

"After reading your most excellent journal for several years intermittently, I came to the conclusion that it was so important that I could not afford to be without it, and it now goes regularly to our school library from me."

This letter is typical of the feeling of many teachers and of many business men throughout the South. When the 1922 edition of the Blue Book was published a good many business men subscribed for a number of copies and furnished them with their compliments to the teachers and the libraries of their counties. Here is a school superintendent so deeply impressed with the value of the information contained in the Blue Book of Southern Development and in the MANUFACTURERS RECORD that he is giving a copy of the former to every member of the senior class, and he is subscribing to the MANUFACTURERS RECORD for the school library. He is making a contribution out of his own pocketbook to the welfare of the schools under him and to all who frequent the school library.

If the same spirit could be awakened everywhere throughout the South there would be a complete change of thought, a broadening of life, a deeper consecration to the development of the South. Many college libraries throughout the South have some of the trashy magazines of the day and many of the popular but more reputable ones; while on the other hand many of the scholars and the teachers do not know their own country, do not understand the economic problems of the day, and do not know the South, past, present or future. Men come out of many Southern colleges with only a smattering of knowledge of what the South of olden days achieved, of what it is doing today, or of the resources upon which it is building.

Some weeks ago a leading Eastern paper published a very glowing account of industrial development of the South and expressed the thought that the South of antebellum days knew nothing about the resources now being made known to the world, and doubtless many Southern people as well as Eastern people thought this was true. As a matter of fact, the best geological reports ever made on a number of the Southern states were made before the Civil War. In many a state legislature there were brilliant appeals long before the war for a concentration of thought and energy upon industrial development. It was entirely due to the fact that cotton and slavery united turned the thought of the South, which in early days had been concentrated upon industrial development, into buying more slaves with which to raise more cotton, and buying more land on which to put more slaves, that caused the section to lose its grip for years on industrial upbuilding.

The real people of the South in olden days fully understood its great resources in minerals and water powers and timber; and the things which we are now doing are to a large extent merely a renaissance of what was started before 1860.

It would be an infinite blessing to the South if in every school and college these facts were constantly taught, and if publications giving this information could be found in every public and private library in the South. No man is well educated until he is thoroughly informed about his own county, his own state, his own section, and then broadly about his whole country.

A somewhat similar thought as that expressed by Mr.

Johnson is stated in a letter from Secretary Bell of the Chamber of Commerce of Whitesville, who writes:

"I have been a reader of the MANUFACTURERS RECORD for a number of years, and believe that if the MANUFACTURERS RECORD and the Blue Book of Southern Progress were kept on the desk of every Southern business man we would have a new South within a very short time."

FOREIGN BORN POPULATION AS VIOLATORS OF PROHIBITION LAWS IN PENNSYLVANIA.

MR. HARRY M. CHALFANT, of the Pennsylvania Anti-Saloon League, in a letter to the MANUFACTURERS RECORD, says:

"A few days ago I wrote you that I would give you any information I might be able to glean concerning 'The foreign problem in liquor law violation.' I have secured letters from a number of counties, and will give you some of the facts I have secured. If you care to investigate the percentage of foreign born population in these counties you can do so by consulting the recent census:

"Somerset County—The present district attorney, since he took office January 1, 1920, has conducted 341 prosecutions for violation of the liquor law. Of this number 220 were foreign born. He does not know how many of the remainder are children of foreign born. His report shows that of the foreign born population of that county, one out of every fifty-six was prosecuted for violating the law, while of the native born population, (including children of foreign born parentage) there was one prosecution for every 576 people.

"Fayette County—This is in the heart of the soft coal country. Out of a total population of 188,000 there are approximately 38,000 foreign born. Recently the state police have been conducting a crusade in that county against violators of the prohibition law. Out of 300 arrests made for violation of the prohibition law, 290 were foreigners.

"Greene County—Less than six per cent of the population is foreign born, but the district attorney reports that 90 per cent of those convicted or pleading guilty of violation of this law are foreign born.

"Mercer County—With 15 per cent of the population foreign born, the district attorney says that 90 per cent of the liquor cases are due either to foreign born or their children.

"Washington County—This morning I had a conversation with one of the judges of Washington County. He was formerly a prosecuting attorney. With a population of 188,000, that county has 41,000 foreign born. The judge assures me that 90 per cent of their trouble is with this element.

"Westmoreland County—Twenty per cent of this county is foreign born. It is in the soft coal region. The prosecuting attorney's estimate that the foreign born cause 75 to 90 per cent of the trouble of that county. One of the judges thinks it runs higher than their highest estimate. He has furnished me a list of the 367 liquor cases in that county during the current year. In a careful study of this list, I find approximately 330 of these names indicate that they or their parents came from Central or Southern Europe.

"I have received a report from the district attorney of Butler county in which he says that an investigation of his records from 1922 shows that 80 per cent of those convicted of violation of the liquor laws in 1922 are of foreign birth. The foreign born population of Butler county is approximately ten per cent. The same district attorney expresses the opinion that 95 per cent of the foreigners of his county are opposed to prohibition."

NEVER KNOWS WHERE TO STOP.

WITH over \$1,090,000,000 more income in 1922 than they had in 1921 Southern farmers will make a brave fight toward paying their obligations, and that will help to swell the volume of trade several times beyond the billion gained by the farmers. John Smith will pay Bill Jones, and Bill Jones will pass the money to some creditor, and he will pay it to another, and so on ad infinitum. A ten dollar bill started on a debt-paying journey never knows where to stop.

The South may well rejoice, therefore, that the increase in the price of its cotton and other farm products will mean a gain to the farmers of this section of over \$1,090,000,000 as compared with 1921, or a gain of one half of the total gain of crop values in the United States.

A REPLY TO THE APPEAL OF THE NATIONAL ASSOCIATION OF MANUFACTURERS FOR MORE IMMIGRATION.

IN view of the fact that the National Association of Manufacturers has recently issued a report to all its members, signed by the Committee on Immigration, and to which President Edgerton adds at the close the following, "I indulge the hope that our proposals meet substantially your views on the matter, and I assure you I would welcome any expression on the subject from you," the editor of the **MANUFACTURERS RECORD** has addressed to President Edgerton a letter from which the following is taken:

"I greatly regret to note that the National Association of Manufacturers has put itself on record as in favor of increased immigration, when increased immigration would necessarily mean the incoming of people not from northern Europe, but from Southern Europe where the breeding of the races through the centuries has created an entirely different class of people than those who made America what it is. Infinitely better, I think, would it be to make less material progress than to sap the real life of this country by the further influx of foreigners until we have learned to assimilate and Americanize those who are here.

"In my recent letter to you I emphasized my views on this subject, and I have before me at the moment two books on the immigration question, neither of which I have yet had time to read carefully, but glancing here and there in rapidly sketching them without undertaking to fully endorse everything in them, as I have not read everything, I wish you would get both of these books and study them. They are "America's Race Heritage" by Clinton Stoddard Burr, published by the National Historical Society of New York; and "America a Family Matter," by Charles W. Gould, published by Charles Scribner's Sons, New York.

"More than 25 years ago Mr. Wm. C. Lovering, then one of the foremost cotton mill men of New England and afterwards for several terms a member of Congress, told me that the conditions in New England cotton mills now coming so pre-eminently to the front, were due to the class of immigrants which had flooded that section.

"We recently published the figures showing that 69% of the entire population of Rhode Island, for instance, is of foreign stock. Massachusetts has 66 per cent. The average for all of New England is 60 per cent of foreign stock. The cotton mill towns of Massachusetts and Rhode Island are almost wholly foreign. Boston is a foreign city.

"If we make material progress on the surface by an increase in factories at the expense of our national life the material progress will be apparent and not real. No sensible man any longer believes that this country can be the 'melting pot' to assimilate races and breeds of people entirely dissimilar to the original stock which made America what it is. The foreign element which has been crowding here for the last twenty years is alien in thought, in spirit, and in morals to the element which has made America, and which must save America if it is to be saved. Think of the city of New York with a population of 5,600,000 having 4,200,000 of foreign stock! The census classes foreign stock as those born abroad or born of foreign parentage. The city of New York has 1,900,000 born abroad, or two and a half times the total population of the city of Baltimore. Its foreign stock of 4,200,000 is nearly three times the population of the whole State of Maryland.

"I have often published the statement made to me in a letter two years ago by Jesse Grant, in which he said that forty years ago his father was greatly impressed with the danger of foreign immigration, and believed that the time would come when the Anglo-Saxonism of the South would have to save America from the influence of this foreign immigration. Immigration then was a trifle as compared with what it has been during the last twenty years. If General Grant could have lived to see from a million to a million and a half people coming largely from Southern Europe into this country he would probably have thought that even the Anglo-Saxonism of the South, and the Anglo-Saxonism of other sections combined would be unable to save America from destruction.

"A scarcity of labor is not wholly an evil. We are already producing more than our railroads can handle, and many laborers are only partly employed, or employed a part of each day, because factories and coal mines cannot run to full capacity. Why attempt to intensify this situation

until we have fully employed, on full time and at good wages, all the population of the country? Why attempt to increase our population by poisoning to a still greater extent than we have done the life blood of the country?

"There is less Bolshevism and less anarchistic spirit among Chinese and Japanese than among Southern Europeans. Chinese and Japanese can do more work at a lower cost than the people of Southern Europe, and they would not attempt to the same extent as Southern Europeans to violate every law of State or National Governments. Why not bring in Chinese and Japanese if labor is so scarce? It is needless to say that such a suggestion would be instantly repudiated by the American people. They do not want Chinese or Japanese laborers even though they are productive and cheap. And with that position I of course fully agree.

"It may be said by some that the Chinese and Japanese could not be assimilated into American life, but I venture to say that they could be as easily assimilated if given the same privileges as a very large proportion of the foreigners which would come from Southern Europe if we let down the bars against immigration.

"It is argued by those who favor throwing open our doors to more immigrants, that many foreigners have left our shores. It is true that many have left. Some have gone back to look up relatives from whom they have not heard since the war. Some have gone back to study the economic conditions which have been developed by the war. But many of them will want to come back here as soon as they see the situation in Europe. But the foreigners who want to come to this country are very largely those who would leave 'their country for their country's good.' We may rest assured that no European Government is willing to see the better class of its people migrate to America; but every European Government is eager to unload on us the anarchistic, the diseased morally and physically, and the incompetents. They will be encouraged, and doubtless means will be provided to help them go to America, to leave their country for their country's good; but their coming would be to this country's curse.

"European steamship lines which for many years have reaped a large part of their profits from the immigration business, amounting in some years to an income of probably \$50,000,000, or more, are of course eager to see a revival of this business. They would like to flood Europe as they did in former years, with propaganda in favor of moving to America. They would paint glowing pictures of its freedom and of its wonderful opportunities. Their agents would be paid a commission, or a bonus in some way, for every immigrant they could secure. In former years every village, and I imagine every farm, in Central Europe and Southern Europe was abundantly supplied with the most glowing stories of the opportunities in America. The president of a Swedish steamship line, who brought not only Scandinavians, which as a whole are desirable immigrants, but who brought many other elements into this country, once said that for 25 years he had filled every village in Europe with pamphlets about America, urging the people of Europe to come to this country.

"These steamship lines are back of much of the propaganda that is being worked up in favor of increased immigration. Many manufacturers, seeing the apparent shortage of labor, and thinking of their present needs instead of studying more deeply the evils which would come to the country in the future through increased immigration from Southern Europe, are also urging the letting down of the bars against immigration. But I believe that this is a very serious mistake fraught with possibilities of tremendous evil for the country. We cannot bring the Southern Europeans into the United States without bringing more bolshevism, more anarchy, more disregard of law, more of the element which thinks that liberty means unbridled license, more violators of the prohibition laws, more who seek to break down the American Sabbath, and more who go contrary to practically all of the things which have made this country the great outstanding exponent of human liberty and marvelous advancement under liberty. But its advancement in the higher things and in the material things of life would be halted and ultimately destroyed by the renewal of that influx of foreigners which for many years brought a million or more to our shores.

"To these suggestions and to the books which I have mentioned, and many others bearing on this immigration question from the broad national standpoint, I invite your careful study."

COMMON SENSE AND SCIENTIFIC REASONS COMBINED IN A SALES TAX.

S. Q. SEVIER, state sales manager of the Pratt Mills, writing from Little Rock, Ark., says:

"I wish to congratulate you for 'hitting the nail on the head' again, to wit: 'The Sales Tax is Scientific and It Is Easily Collected.' These ten words cover the case fully. The sales tax is fought by the politician not because it is unrighteous but because its collection is so simple, and because of this fact an army of place holders and salary grabbers would be eliminated from Government payrolls should such a law be enacted.

"I believe you have judged correctly when you say 'this country is going to have to adopt it sooner or later.'"

"Go to it and hasten the day."

Mr. Sevier is quite correct. The sales tax is not only scientific, but it is common sense, and it is fair to every class. Unfortunately, Congress is not always ruled by common sense, and therefore it is slow in passing a common sense tax bill. Our present tax system has created a mighty army of Government employees in Washington, and another army which is constantly on the move investigating the accounts of individuals and business concerns, not merely since the time since the tax was imposed, but going back to the very origin of the business. Sometimes these auditors attempt to trace up the details of a business organized fifty years or more ago, when perhaps the organizers and all connected with the company in those early days have passed away.

While the Government employs this great army, another army must be employed by business men for the purpose of trying to make out honest reports as to incomes, but no man can possibly know, after a report has been made and accepted and the income tax paid, whether or not he may years hence be examined and re-examined in order to find out if his report was correct. Many of the reports made to the Government four or five years ago and accepted by the Government are still under investigation, and nobody knows when the end of these interminable investigations will be reached.

Our system of taxation is bad enough on its face, but the methods adopted, including the employment of many thousands of employees or investigators, is even worse. Congress, however, will hesitate long before it will adopt any system of taxation or any other system which lessens the number of Government employees. Most Congressmen live by reason of the jobs they can secure or jobs which they can create for the purpose of giving employment to the voters who put them in power. Until there is a complete cleaning out of this whole system of creating new jobs by the jobholders for the purpose of finding employment for their friends, the country must live under the curse of methods which would destroy any business in the world.

The sales tax is simple; it is scientific; it is common sense. It could be made to save the country hundreds of millions of dollars and force out of Government employment with their bureaucratic domination tens of thousands of people who ought to be engaged in constructive work in private life.

NATIONAL SAFETY DEPENDENT UPON PROSPEROUS AGRICULTURE.

MR. CLEMENT S. UCKER, Director of Development of the Seaboard Air Line Railway Company, in strongly commending an editorial in the MANUFACTURERS RECORD bearing on agricultural conditions, writes:

"The best editorial I have ever read in the MANUFACTURERS RECORD is that appearing on page 51, issue of November 30.

"I spent ten years of my life in the Public Land Service of the United States in close connection and close observation of the settlement of the free public lands of the United States,

and for the next ten years I have been closely connected in land settlement and land development in the Southeastern states. The United States of America wants to give some very serious attention to the agricultural side of this nation, and do it quickly.

"I know they will tell us that they can't sell the produce that is now offered by the farmers, but that's not the point, that's a temporary derangement in the world's marketing, and by that term I mean to include transportation, shortcomings of the middle men, lack of adequate financing, and all that sort of thing. But I am talking about the thing from a social, or rather sociological aspect. I am talking about creating some farm homes, some rural homes to counterbalance the social unrest in the cities. The social unrest in the city will never get better, it will never improve, it's going continually to get worse. Nothing can stop it. All the constant demands by organized labor will never stop,—it's sociological. It's the revolt of the under-man against the hopelessness of our modern civilization,—that is, hopeless to him.

"I have puzzled over this thing a good many years, and I finally have come to the conclusion that the only salvation is to create some more homes out in the open, out in God's sunshine."

THE WORLD MUST OF NECESSITY LOOK TO THE SOUTH FOR ITS COTTON SUPPLY.

A MERICAN papers are constantly being flooded with dispatches from Europe to the effect that Great Britain is making gigantic efforts to grow cotton in other parts of the world in order to lessen its dependence upon the South; and the average American newspaper and newspaper reader apparently know so little about the situation that these dispatches are accepted as indicating the early coming of an abundance of cotton from these efforts of English cotton growers and the English Government.

As a matter of fact, the efforts that are now being made in England and on the continent to grow cotton are not more vigorous than were the efforts made by England from 75 to 100 years ago, and continued intermittently ever since. The British papers of the forties and fifties were just as full of the propaganda in favor of raising cotton in British possessions as they are today. The subject was discussed constantly in Parliament and in reports of the British Board of Trade. About 1840 quite a number of expert cotton growers from the South were engaged by British cotton interests and sent to India for the purpose of teaching the natives how to grow cotton in competition with the South. After a few years these American growers abandoned the job and came home.

England was then trying not only to increase the supply of cotton in India, but to develop this industry in other dominions.

The work that is now being carried on, in which England hopes to increase cotton production in the Soudan, is handled by dispatches from London as though it was a matter of tremendous importance, but when one comes to read the details of the dispatch it is said that the English efforts in this direction look to the possibility of enabling Egypt to produce 110,000 bales of cotton more than it now produces—a mere bagatelle in the world's cotton supply. In another portion of the dispatch it is stated that the British Government is to guarantee funds for the construction of a 217 mile road of the Soudan railways in order to open up another field of cotton growing possibilities, and "it is hoped that eventually as much as 100,000 acres will thus be made available for cotton growing." 100,000 acres in contrast with 32,000,000 to 36,000,000 acres does not very greatly impress people who are familiar with the South's cotton growing facilities.

Nor is any one who has followed the history of English efforts to grow cotton elsewhere at all disturbed by the sensational dispatches that are being sent to this country,

doubtless for the express purpose of trying to create a panicky condition among American cotton growers and make them feel that unless they sell cotton at a low price the doom of their industry is sealed. All the efforts that can be made by all the financial and cotton mill interests of Europe to grow cotton in other regions, as a report made in England more than 75 years ago said, "to lessen the dependence of English mills upon the Southern States of America for their cotton supply," cannot measurably increase the cotton supply of the world during the next forty or fifty years to an extent sufficient to make any impression upon the world's increasing demand for cotton.

In the first 60 years of the last century the South, with a concentration of its whole spirit largely upon cotton growing with slave labor, developed this industry to a point where by 1860 it had increased its cotton production to an average of about five million bales a year for the preceding five years.

In this, the best cotton growing region in the world, with an abundance of slave labor, managed by the ablest cotton growers which the world has produced, it took sixty years to develop an industry producing 5,000,000 bales annually. If all the rest of the world should within the next fifty years match that development and find a way to increase the world's production by 5,000,000 bales, this increased supply would fall so far short of the world's needs at that time as to be merely a bagatelle in meeting the world's requirements for cotton goods.

In the meantime, however, every possible effort that can be made to fill the American papers with propaganda about cotton raising in other countries will be put forth from foreign sources for the express purpose of breaking down the prices of American cotton, by making the cotton growers of this country feel that unless they sell cotton at low prices they will be wiped out of existence by foreign competition. It is only the non-informed people who are influenced by such stuff.

BRANCH BANKING.

A recent letter of the editor of the **MANUFACTURERS RECORD** to the Missouri Banks and Trust Companies Opposed to Branch Banking has called forth a letter from Mr. E. N. Baty, Executive Manager of the United States Bankers Association Opposed to Branch Banking, in which he says:

"Permit me to extend to you my sincere congratulations on the very able manner in which you established a clear case against the Branch Bank practice. The arguments which you have set forth are indeed worthy ones, and if more editors would take the interest that you are taking in this vital matter we would soon have the evil legislated out of existence. Please accept the thanks of our Association for the valuable aid you have rendered the cause of Independent Banking."

Cotton Consumed and on Hand.

For the five months ending December 31 the Census Bureau reports that 2,662,204 bales of cotton were consumed, compared with 2,484,959 bales consumed during the same period of 1921. The number of bales of cotton reported held in consuming establishments December 31 were 1,921,295, compared with 1,738,138 bales December 31, 1921. In public storage and at compresses there were reported on December 31, 4,074,945 bales, compared with 5,206,663 bales held on December 31, 1921.

During December 34,968,440 cotton spindles were reported active compared with 34,439,142 active in December, 1921.

Exports of cotton for the five months ending December 31 amounted to 2,906,052 bales, compared with 3,108,360 bales exported during the corresponding period of 1921.

Cotton Growing in the Sudan from Which England Hopes to Raise 70,000 Bales Annually.

Manchester, England, Jan. 4.—[Special.]—In view of the threatened world shortage of the cotton supply a report just issued on the authority of the Sudan Government on the schemes for growing cotton in the Sudan is of considerable interest. Experts in this country and in America have stated that within a few years there is a possibility of the textile industry having to face a most serious position on account of the possible falling off in the amount of raw material available to be made into cloth. The British Government is to guarantee a loan to provide funds for the building of an extension of the Sudan railways to Kassala, about 217 miles in length, from a junction with the Red Sea line to Port Sudan. The line will be open for traffic in April 1925. One of the main objects in building the line is to render possible the expansion of the cotton growing area in the delta of the Gash, where excellent cotton has been successfully grown for a number of years. An immediate increase in the cotton output may be expected to follow the opening of the new railway.

A further loan will shortly be raised for the building of the dam now under construction on the Blue Nile and the area intended to be developed in the first place is 300,000 acres, of which 100,000 acres will be under cotton every year. It is estimated that this area will produce about 70,000 bales of long staple Egyptian cotton annually.

In the Gezira district for the last eleven years exceptionally good cotton of this class has been successfully grown. The scheme is capable of vast developments for it is estimated that there are some 3,000,000 acres in the Gezira district suitable for cotton growing. Great economic advantages will accrue to Great Britain from the developing of the Sudan as a cotton growing area.

New Differential on Cotton Shipments.

At the close of the joint conference of officials of the United States Shipping Board and representatives of the shipping interests which was held last week at Atlantic City, N. J., announcement was made by W. B. Keene, traffic director of the Shipping Board, that the new differential on cotton shipments would take effect January 22. Heretofore, says a dispatch to the New York Times, the cotton differential between Gulf ports and North Atlantic ports has been 17 cents per 100 pounds. This, it was stated by representatives of Southern lines, made it possible to ship cotton coastwise from Gulf ports to New York and from there transship it to Europe at a smaller cost to shippers than by direct shipment from Gulf ports to Europe. Under the new agreement the differential will be the coastwise rate, so that whenever the coastwise rate changes the differential will change automatically.

Another report in the Philadelphia Ledger puts it this way: "Under the agreement the shipping freight rate on cotton will be increased from 17 to 20 cents. The new arrangement, shipping men say, will cut down cotton shipments from New York and proportionately increase those from Southern cities, principally New Orleans and Galveston.

"Sweeping changes were urged by the Southern steamship men in the parities and differentials on general commodities but after a long debate it was decided that the present list should remain in force."

Steamship Service from Port Arthur to Newark, N. J.

Beaumont, Tex.—Freight service has been established between Port Arthur and Newark, N. J. by the Transmarine Corporation Line, whose steamer, Sucaresco, recently sailed from Port Arthur with a large cargo, principally of lumber. It is expected that considerable traffic will be developed in naval stores, cotton and rice.

Growth of Negro Population in the United States and Trend of Migration from the South Since 1860.

ECONOMIC CONDITIONS THE REASON NEGROES ARE LEAVING SOUTH.

By HOWARD L. CLARK.

Economic conditions have always been the primary cause of migrations of peoples, with oppression and persecution secondary.

The migration of Southern negroes has been going on steadily for decades, and the recent war gave a great impetus to the movement, both locally and inter-State. Negroes have for years shifted back and forth between neighboring farms and communities and neighboring States and the shifting of population during the mobilization for the war against Germany and her allies gave them an opportunity to widen their circle of travel.

High wages and the war drew the negroes of the South to the industrial centers of the North and West, and also from farms to the industrial cities of the South. This movement was not confined to Southern negroes but was general among all classes of rural population, though even at the height of this migration there never was the large number of negroes to go outside of the South as was supposed. At one time it was said that a quarter of a million negroes had left the South and located in Chicago. This does not square with the facts in the case, for the Census of 1920 shows that in the whole State of Illinois there were only 182,274 negroes. Since then some of them have returned to the South; but because of the business depression and hard times following the drop in cotton prices, they have been going to the industrial centers again looking for work at higher wages and shorter hours. They are not leaving the South because they are dissatisfied with their treatment or through reported intimidation and persecution reputed to come from the Ku Klux Klan, but because they were unable to get work and are migrating, as people have done through the ages, to a land they believe to be one of plenty with opportunity for work at high wages and short hours.

Furthermore, this movement of the negroes North is aided by the fact that, as in the days of war activity, agents of Northern manufacturing concerns are traveling through the South encouraging negroes to go North on the promise of steady work. A special dispatch to the Baltimore News recently stated that the great industrial plants of the country are still sending out S. O. S. calls for labor, skilled and unskilled. It contains the following:

"Reports of a general exodus of negro labor from the South to the steel mills have been greatly exaggerated. Several thousand negroes have moved North at the instance of labor recruiting agents, attracted by high wages, but these, according to Southern State authorities, have come from isolated sections of the cotton belt which have been devastated by the boll weevil. The workers taken, according to dispatches from Atlanta and other Southern points, are unsuitable for other than farm labor, and no Southerners are worried about their departure. The movement is an annual happening and the negroes mostly return to the cotton fields in the spring and summer."

The arguments of the Northern agents fall on fertile ground because many of the negroes have only been able to make a scanty living in the past two years, barely getting enough to eat, especially when the forced deflation beat down farm prices and practically ruined the cotton growers of the South as well as farmers elsewhere, and the thousands of negro croppers who at the close of a year's work found themselves in debt with nothing on which to start a new crop the following spring. Though cotton prices have been higher this year, the negroes have

not been able to lift their load of debt as well as the Southern white farmer. Thousands of negroes under these circumstances have been a drain on the Southern white people, especially in the heavily infested boll weevil sections, because they have been carried along on rations bought in most cases on borrowed money and furnished to these tenants by the Southern white land owners. That is why many Southern people believe that it is the best thing that could happen to the South for these negroes, who have been living on the white population, to seek employment elsewhere until the boll weevil problem has been solved.

However, the negroes will find that when work becomes slack in the industrial centers they will have to depend only on themselves for food and shelter. Their new "boss" is not in the same position or actuated by the same motives to ration them through hard times as their Southern "boss" or land owner. The South as a whole understands the negroes better than any other section of the country and by and large the negro receives better treatment at the hands of a Southerner than from anyone else. Time has proven this. It is almost inevitable that if in the future such a decrease of work in the North should be realized, this same class of migrating negroes will turn their face Southward and say: "It's gwine back to Dixie", and many of them will do so in the spring anyhow, as they did when industrial activity slackened after the war. On this point, there are already signs that the negroes who have migrated North are beginning to return. The Jackson (Miss.) Progress Argus recently stated that:

"If we are correctly informed many of the negroes who have been leaving the South to seek employment in industrial plants in the North and East are coming home. The South is the best for the law abiding, industrious black man. The people of the South understand the negro and he understands the people of the South."

The total number of negroes reported on January 1, 1920, as born in the sixteen Southern states and District of Columbia, was 9,716,659. Of these 7,832,625, or about 80 per cent, were living in their native states in 1920 and about 1,100,000 were living in other Southern states and but 775,000 Southern born negroes were living in the North and West. Probably 50,000 negroes born in states outside of the South were living in the South January 1, 1920, which would give a net difference in this migration in favor of the North and West of about 725,000. This is really a small proportion, however, who have left the South in past years compared with the total population. As stated, many of the negroes enumerated at the last census as living in the North returned to the South during the period of depression following the war, and in many cases it is possible this is the class which has again turned to the North and West seeking the jobs reported open in industrial centers.

Col. Harvie Jordan, National Secretary and Treasurer of the American Cotton Association, recently stated that:

"The most serious factor developing in connection with the cotton boll weevil menace is found in the steady and increasing exodus of thousands of negro and small white tenant farmers from the South Atlantic and Middle Gulf States. The white farmers, with their families, are moving to cotton mill centers in the Carolinas and Georgia, while the negro farmers are migrating to large industrial centers in the middle Eastern and Western states. Due to the extreme hazards of growing cotton under heavy weevil infestation and in the absence of usual credits from landlords, supply merchants or local banks, these people are becoming

discouraged and forced to secure other employment to obtain a living wage for themselves and families. Large numbers of cotton plantations are being depopulated and this condition presents a most serious agricultural economic situation in the sections affected. The negro farm laborers who have gone and who are leaving are not likely to return."

The reported abandonment of farming by the poorer class of white farmers, and this recent migration of the negro from the South may affect the production of cotton and Southern farm work generally, although emphasis should be given to the fact that the South is not depending upon the negro for cotton growing to as great an extent as many people suppose. Conditions have changed in recent years by reason of improved methods of cultivation with modern machinery and modern methods of farming which lessen manual labor. A large proportion of the cotton produced in the South is by white farmers of small means working as tenants on shares, or as croppers. In Texas, with a negro population of 741,694 and Arkansas with 472,220, is produced about one-third of the country's cotton, and these two states produced 4,294,000 bales of cotton in 1922 while Georgia with a negro population of over 1,200,000 or as much as these two states combined, has a five-year average production of cotton of only 1,750,000 bales.

White and Negro Population 1860-1920.

	White 1860.	Negro 1860.	White 1920.	Negro 1920.
Alabama	526,271	437,770	1,447,032	900,652
Arkansas	324,143	111,259	1,279,757	472,220
District of Col.	60,763	14,316	326,860	109,966
Florida	77,746	62,677	638,153	329,487
Georgia	591,550	465,698	1,689,114	1,206,368
Kentucky	919,484	236,167	2,180,560	235,938
Louisiana	357,456	350,373	1,096,611	700,257
Maryland	515,918	171,131	1,204,737	244,479
Mississippi	353,899	437,404	853,962	935,184
Missouri	1,063,489	118,503	3,225,044	178,241
North Carolina	629,942	361,522	1,783,779	763,407
Oklahoma .....	.....	.....	1,821,194	149,408
South Carolina	291,300	412,320	818,538	864,719
Tennessee	826,722	283,019	1,885,993	451,758
Texas	420,891	182,921	3,918,165	741,694
Virginia	1,047,299	548,907	1,617,909	690,017
West Virginia .....	.....	.....	1,377,235	86,345
Total	8,006,873	4,193,987	27,164,643	9,060,137
United States	26,922,537	4,441,830	94,820,915	10,463,131

The negro population in the South increased from 4,193,987 in 1860 to 9,060,137 in 1920, or a little more than doubled in sixty years. During this period, the white population of the South increased from 8,006,873 in 1860 to 27,164,643 in 1920, or nearly three and a half times. In 1860, the negro population was 34.4 per cent of the total Southern population. In 1920, the negroes were less than 25 per cent of the total population, showing that the South, as well as the whole country, to be growing steadily whiter.

The growth of negro population in the states outside of the South has been going on steadily for decades, but their number in proportion to white population has decreased. Between 1860 and 1880, the negro population of the South increased by 1,878,824 or 44.8 per cent; outside of the South in this twenty year period the negro population increased 260,139 or 104.9 per cent. In the next twenty years from 1880 to 1900, the negro population of the South increased by 1,980,695 or 32.6 per cent; while outside of the South the increase was 272,506 or 53.6 per cent. During the last two decades the negro population increased in the South by 1,006,631 or 12.5 per cent compared with an increase in the rest of the country outside of the South of 622,506 or 79.7 per cent.

Most significant of all, however, is the fact that the negro population of the South increased between 1910 and 1920 by only 184,439 or about 2 per cent, while in this ten year period the negro population increased in the North and West by 450,929 or 47.3 per cent, or nearly two and a half times the increase in the South in actual numbers. These facts of course, show that the negroes have been leaving the Southern States for a long time and that the present migration is nothing new although at the moment intensified by the

boll weevil destruction of cotton in many places. The negroes who have gone from the South left in search of wider opportunities to make an easier living.

The growth of Southern native white population of native parentage between 1890 and 1900 was 3,472,728 or 25.8 per cent; outside of the South the increase of the same stock was 3,222,341 or 15.4 per cent. The negro population in the South increased during this period by 1,171,131 or 17 per cent. Between 1900 and 1910 the native white population in the South increased by 3,872,295 or 22.8 per cent while the negro population in the South in this ten year period increased by 822,192 or 10.2 per cent. The growth of the native white population outside of the South between 1900 and 1910 was 4,562,863 or 18.9 per cent.

Between 1910 and 1920 the Southern white population of native parentage increased by 3,407,871 or 16.3 per cent, while the negro population in the same time as previously stated, increased by but 184,439, or only 2 per cent.

Outside of the South the native white population increased in that ten year period by over 5,500,000, or 19 per cent.

Negro Population, by Geographic Divisions,* 1860-1920.

Section.	1860.	1880.	1900.	1910.	1920.
New England.....	24,711	39,925	59,099	66,306	79,051
Middle Atlantic...	152,917	215,934	356,618	449,051	630,518
East North Central	63,699	183,298	257,842	300,836	514,554
West North Central	2,037	56,973	76,675	85,210	100,280
South Atlantic....	2,036,571	2,914,760	3,698,320	4,081,307	4,294,785
East South Central	1,394,360	1,924,996	2,499,886	2,652,513	2,523,532
West South Central	763,056	1,233,055	1,855,300	2,141,878	2,241,820
Mountain	235	5,022	15,590	21,467	30,801
Pacific	4,244	6,830	14,664	29,195	47,790

* New England: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut. Middle Atlantic: New York, New Jersey, Pennsylvania, Delaware. East North Central: Ohio, Indiana, Illinois, Michigan, Wisconsin. West North Central: Minnesota, Iowa, North Dakota, South Dakota, Nebraska, Kansas. South Atlantic: Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida. East South Central: Kentucky, Tennessee, Alabama, Mississippi. West South Central: Arkansas, Louisiana, Missouri, Oklahoma, Texas. Mountain: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada. Pacific: Washington, Oregon, California.

Note—Delaware is classified under Middle Atlantic States, and Missouri in the West South Central division.

Even more impressive than the previous figures is the fact that in comparing the increases in negro population for different sections of the country, it is seen that in the East South Central States, with a negro population of 2,652,513 in 1910, there was actually a decrease reported by the Census of 1920 of 128,981 or 4 per cent.

In the South Atlantic States with a negro population of 4,081,307 in 1910 there was an increase in 1920 of only 213,478, or 5 per cent. During this period the West South Central States, with a negro population of 2,141,878 in 1910 shows an increase in negro population of only 99,942 or 4 per cent. For the sections outside of the South the New England States made a gain in negro population of 12,745 or 19 per cent; the Middle Atlantic States increased in negro population by 181,567 or 40 per cent; East North Central States, 213,718 or 71 per cent. The ten year gain in the East North Central States was nearly 30,000 more than the total gain in the South. The West North Central States gained 15,070 or 17 per cent; the Mountain States 9334 or 43 per cent; and the Pacific States increased in negro population between 1910 and 1920 by 18,595 or 63 per cent.

It is a remarkable fact that between 1910 and 1920 the Negro population of the country increased by only 636,000 or 6.5 per cent compared with a total gain of the native white population of 12,722,000 or 18.6 per cent.

The heaviest migration of negroes from the South has been to the State of Pennsylvania where the number of negroes increased from 85,535 in 1880 to 284,568 in 1920, the increase in negro population during the last ten years alone being 90,649 or 46 per cent. Ohio in the last ten years

shows a growth in negro population of 74,735, and Illinois a gain during this period of 73,225 in negro population.

There were many states outside of the South which showed a decrease in negro population in 1920 compared

Negro Population by States, 1880-1920.

	(Census Figures.)			
	1880.	1900.	1910.	1920.
Alabama	600,103	827,307	908,282	900,652
Arkansas	210,666	366,856	442,891	472,220
District of Col.	59,596	86,702	94,446	109,966
Florida	126,690	230,730	308,669	329,487
Georgia	725,133	1,034,813	1,176,987	1,206,365
Kentucky	271,451	284,706	261,656	235,938
Louisiana	483,655	650,804	713,874	700,257
Maryland	210,230	235,064	232,250	244,479
Mississippi	650,291	907,630	1,009,487	935,184
Missouri	145,350	161,234	157,452	178,241
North Carolina	531,277	624,469	697,843	763,407
Oklahoma .....	.....	55,684	137,612	149,408
South Carolina	604,332	782,321	835,843	864,719
Tennessee	403,151	480,243	473,088	451,758
Texas	393,384	620,722	690,049	741,694
Virginia	631,616	660,722	671,096	690,017
West Virginia	25,886	43,499	64,173	86,345
Total South	6,072,811	8,053,506	8,875,698	9,060,137
Arizona	155	1,848	2,009	8,005
California	6,018	11,045	21,645	38,763
Colorado	2,435	8,570	11,453	11,318
Connecticut	11,547	15,226	15,174	21,046
Delaware	26,442	30,697	31,181	30,335
Idaho	53	293	651	920
Illinois	46,368	85,078	109,049	182,274
Indiana	39,228	57,505	60,320	80,810
Iowa	9,516	12,693	14,973	19,005
Kansas	43,107	52,003	54,030	57,925
Maine	1,451	1,319	1,363	1,310
Massachusetts	18,697	31,974	38,055	45,466
Michigan	15,100	15,816	17,115	60,082
Minnesota	1,564	4,959	7,084	8,809
Montana	346	1,523	1,834	1,658
Nebraska	2,385	6,269	7,689	13,242
Nevada	488	134	513	346
New Hampshire	685	662	564	621
New Jersey	38,853	69,844	89,760	117,132
New Mexico	1,015	1,610	1,628	5,733
New York	65,104	99,232	134,191	198,483
North Dakota	401	286	617	467
Ohio	79,900	96,901	111,452	186,187
Oregon	487	1,105	1,492	2,144
Pennsylvania	85,535	156,845	193,919	284,568
Rhode Island	6,488	9,092	9,529	10,036
South Dakota .....	.....	465	817	832
Utah	232	672	1,144	1,446
Vermont	1,057	826	1,621	572
Washington	325	2,514	6,058	6,883
Wisconsin	2,702	2,542	2,900	5,201
Wyoming	298	940	2,235	1,375
Total Outside South	507,982	780,488	952,065	1,402,994
Total United States	6,580,793	8,833,994	9,827,763	10,463,131

with 1910; among them being Colorado, Delaware, Maine, Montana, North Dakota, Vermont, whose negro population decreased by over a third in the last ten years, and Wyoming with a decrease of about a half.

Georgia, with 1,206,365 negroes, has the largest negro population of any state, but Georgia's increase in negro population in the last ten years was but 29,378 or 2.5 per cent, while the Southern States showing a decrease in negro population in 1920 were: Alabama, Kentucky, Louisiana, Mississippi and Tennessee.

The foregoing facts plainly indicate that the migration of negroes from the South has been growing steadily over a long term of years, and that the present apparent movement shows that many of the negroes who came back into the South after the war are again drifting North, forgetting the hardship of Northern winters and the unfamiliar surroundings they experienced before. It may be safely predicted that when the call of the spring comes or the boll weevil has been conquered many will be turning their faces to the call of the plow, and of hog and hominy. But broadly viewed this migration to the North and West will in the end prove a blessing to the South. It is making the South more and more a white man's country, and it is giving to other states a new realization of the South's great problem in handling the negro question. All sections will in this way have to meet and solve exactly the same problem, which is no longer an exclusive Southern problem.

The South will be stimulated to a larger use of modern

equipment in the home and on the farm to supplant the decreasing negro labor and supply. The South has had more negroes than it could profitably employ at good wages and the slow growth of the negro population in this section will result in better wages for whites and negroes alike. That there will be temporary disadvantages, some lessening of cotton acreage and higher cost of cotton production, by reason of these facts is inevitable, but in the long run the South will be benefitted, the negroes will be improved by seeing conditions elsewhere and having their ambitions for better living conditions stimulated, and the whole country will have to unite in solving all the problems connected with this great question.

Cotton Spinning Industry Active in December.

According to preliminary figures compiled by the Census Bureau, there were 37,204,137 cotton spinning spindles in place in the United States on December 31, 1922, of which 34,968,440 were operated at some time during the month, compared with 34,664,630 for November, 33,859,076 for October, 33,296,513 for September, 32,499,324 for August, and 34,439,142 for December, 1921.

The total number of cotton spinning spindles in place, the number active and the number of active spindles hours by states, are shown in the following statement:

	Spinning Spindles		Active spindle hours for Dec.
	In place Dec. 31	Active during December	
United States	37,204,137	34,968,440	8,228,298,381
Cotton-growing states	16,172,051	15,856,774	4,238,181,322
All other states	21,032,146	19,111,666	3,990,117,062
Alabama	1,310,144	1,248,718	327,941,127
Connecticut	1,374,796	1,321,617	285,525,765
Georgia	2,688,228	2,629,127	736,498,707
Maine	1,145,160	1,129,195	239,909,417
Massachusetts	12,004,042	10,819,219	2,152,014,985
New Hampshire	1,448,660	1,228,199	268,290,232
New Jersey	445,195	432,332	76,852,882
New York	1,022,426	946,532	240,062,756
North Carolina	5,352,765	5,258,597	1,348,135,272
Pennsylvania	233,041	144,935	29,186,994
Rhode Island	2,884,042	2,667,029	603,822,808
South Carolina	5,102,766	5,049,185	1,433,331,194
Tennessee	432,514	424,480	105,897,635
Virginia	628,058	609,537	120,906,169
All other states	1,132,360	1,059,738	259,913,491

New \$1,000,000 Apartments for Baltimore.

Contract for the erection of a new apartment building in the Guilford-Roland Park section of Baltimore has been awarded L. L. Chambers, a local contractor. It is thought the structure will be ready for occupancy by next fall. Plans and specifications for the building, which will cost about \$1,000,000, were prepared by Edward L. Palmer of Baltimore, and the owners are said to be identified with a local financial institution.

The building will be a 5-story brick structure, 320 by 180 feet, and will contain 100 suites. On the first floor will be a lobby, large lounging room, public dining room, kitchen and service rooms. A feature of the enterprise will be the development of gardens and playgrounds for the use of the occupants.

Power Company to Expend \$750,000 for Improvements.

Logan, W. Va.—In a succession of improvements and enlargements during the past ten years, the Kentucky & West Virginia Power Co. has expended \$4,000,000 on its plant on Little Island, this city. Because of the demands from this coal field and the nearby counties and Eastern Kentucky, plans have been adopted and a contract is awarded to the Foundation Co. of New York for further improvements, including a new generator unit to cost about \$750,000.

The new equipment will include three 1000-H. P. boilers, 15,000 kilowatt generator, a 250-ft. concrete stack and incidental accessories. It is planned to begin construction of the unit at once.

Atlanta's \$3,000,000 Water Works System Nears Completion—Big Program of Public Improvements.

\$4,000,000 FOR SCHOOLS, \$1,250,000 FOR SEWER SYSTEM ENLARGEMENT, AND \$750,000 FOR SPRING STREET VIADUCT INCLUDED IN THE NEW DEVELOPMENT.

By WILLIAM H. STONE.

Atlanta, Ga.

Realizing several years ago that steps must be taken to enlarge and improve some of Atlanta's main public facilities to take care of its rapidly growing population, a movement was started looking to the provision of sufficient funds to carry forward these undertakings. This culminated in submitting to the people in 1921 a bond issue calling for \$8,000,000, which was carried by the largest vote ever recorded in any election in the city. Under this bond issue, and with other funds in hand, the following amounts were made available for undertaking these needed improvements. \$4,000,000 for schools; \$3,100,000 for extension of water works system; \$1,250,000 for enlargement of sewer system, and \$750,000 for the Spring Street viaduct. Much of this work has been placed under contract and construction has gone along steadily, so that early in the present year it is expected that a good portion of the improvements will have been completed.

One of the most interesting of the new developments is that for enlarging and modernizing the present water works system. The plans for this system were prepared by Paul H. Norcross, consulting engineer of Atlanta. When all the improvements are completed the Atlanta Water Department will be capable of taking care of a population of 375,000. In laying out the extensions, however, these were so designed that they could be added to from time to time so as to eventually develop a system that would provide for a population of 500,000 to 600,000. At the present rate of Atlanta's growth it is estimated that by 1940 the city's population will probably reach the 500,000 mark.

The work now under construction consists of a filter plant having a capacity of 21,000,000 gallons, and a covered filtered water reservoir with a capacity of 10,000,000 gallons, and all the auxiliary facilities that are necessary for the complete operation of the enlarged plant. These latter, in the main, consist of building an 18,500 ft. new intake pipe line, and extensions of two pumping stations in which will be

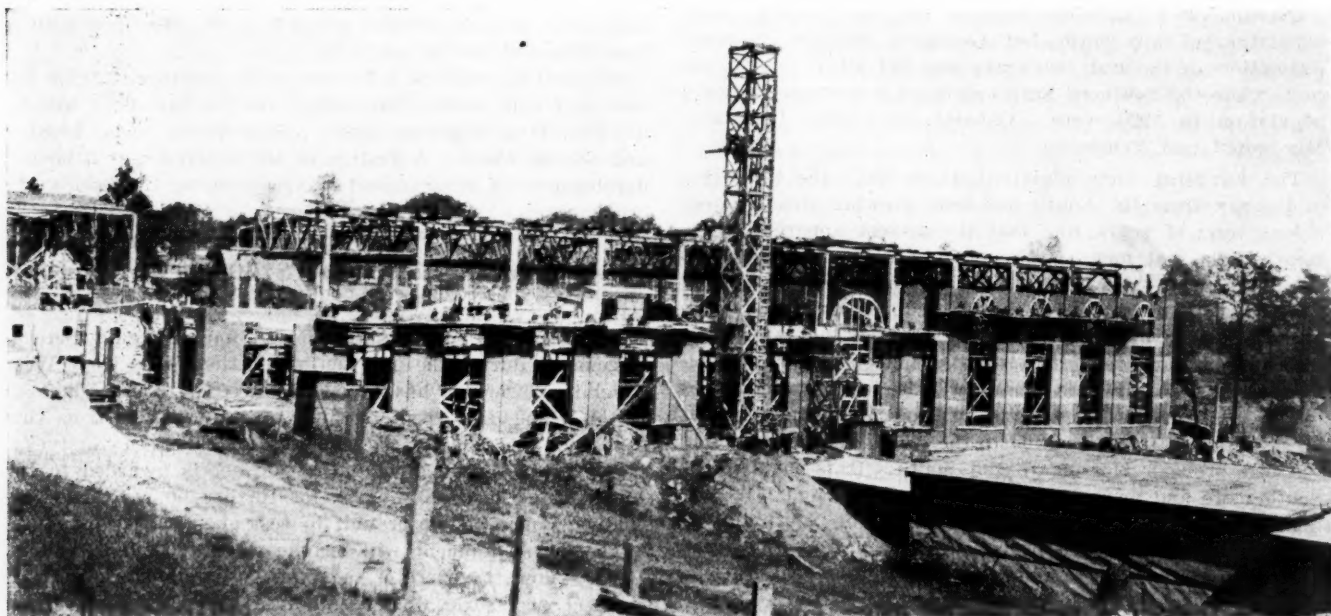
installed additional pumping equipment. The filter plant is being constructed of reinforced concrete with a brick and steel superstructure. The main filter building is approximately 202 feet long by 76 feet wide, and there will also be a laboratory of similar construction 60 feet long by 47 feet wide. Seven units of 3,000,000 gallons per day capacity each will constitute the filter plant capacity. The construction of the filter plant is being done by Case & Corthran, general contractors, Atlanta, Ga. The filter plant equip-



MAKING GYPSUM ROOF SLABS FOR FILTER PLANT.

ment is being provided by the New York Continental Jewell Filtration Co., of New York City.

The filtered water reservoir is of reinforced concrete construction, with sloping sides, and the reservoir will be covered with a reinforced concrete slab, on top of which soil will be placed. The bottom dimensions of the reservoir is 127.5 by 300 feet and its depth is 22 feet, and it has a total capacity of 10,000,000 gallons. The filter plant is connected to the reservoir by a 60 inch concrete conduit in which is placed a 48 inch Venturi tube and meter, and also 48 inch cast iron pipe connections and supply mains to



21,000,000 GALLON FILTER PLANT OF ATLANTA WATER WORKS SYSTEM.

pumps, blow offs, etc. The new plant will be so connected with the old one that the present filters may be discharged to the new reservoir and the two plants be operated in sympathy.

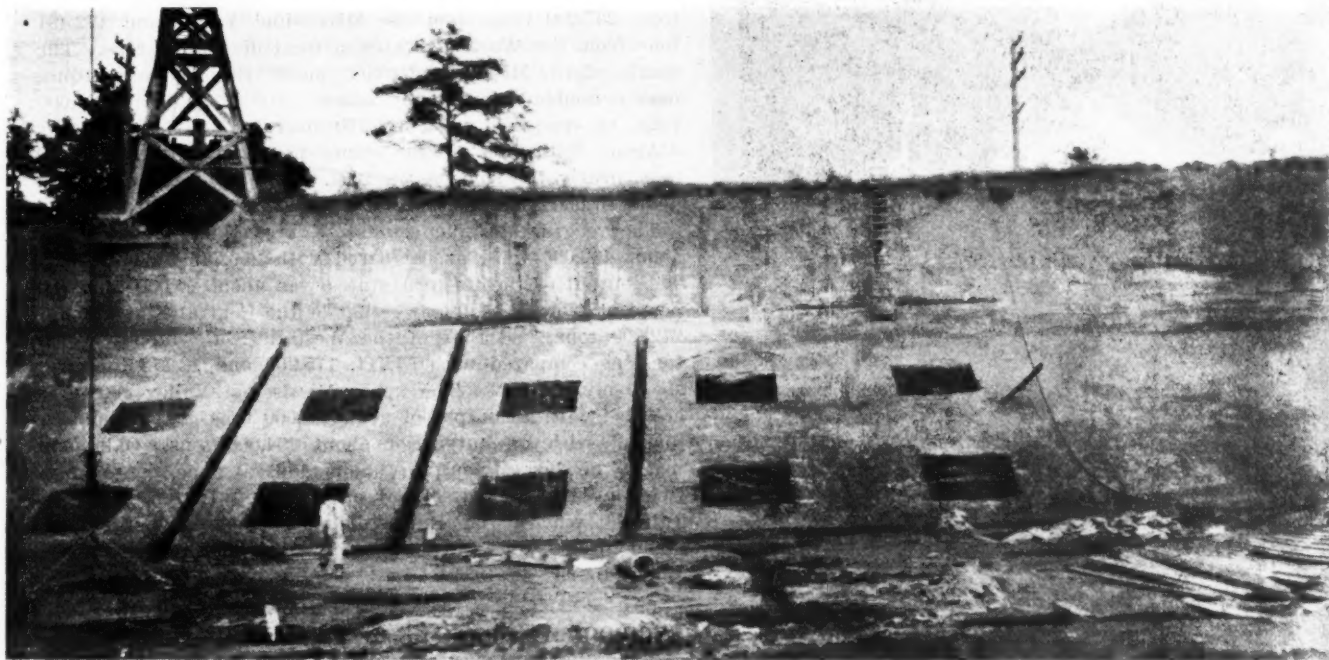
The filtered water reservoir is being constructed by the Nichols Contracting Co. of Atlanta, Ga. The new machinery for the pumping plant is being furnished by the following concerns: Worthington Pump and Machinery Corp. of New York City, Allis-Chalmers Mfg. Co. of Milwaukee, De Laval Steam Turbine Co., Trenton, N. J., Nordberg Mfg. Co., Milwaukee, Wis., Hooven-Owens-Rentschler Co., Hamilton Ohio. All cast iron pipe in the new work is being furnished by the U. S. Cast Iron Pipe & Foundry Co., Burlington, N. J., and the valves are being supplied by the Rensselaer Valve Co., Troy, N. Y.

An interesting phase of the water works extension is the

Smith justifiably takes great pride in the improvements that are being made to the system and the plans for the future, because these carry out the dreams which he has always had for giving the city of Atlanta a thoroughly modern and adequate water supply system.

Mr. Smith has been connected with the department for 28 years. He started in the department in the meter and repair section and in the intervening period has worked in all branches of the service. In 1906 he was elected secretary of the Board of Water Commissioners, and in 1910 at a general election was made general manager of the entire system.

Mr. Smith states that in administering the water works system of Atlanta it has always been his policy to impress upon all the employees that their one effort must be to give service to the people and be courteous at all times, and he



10,000,000 GALLON FILTERED WATER RESERVOIR.

new 48 inch pipe line which is being constructed to bring the water supply to the filter plant. This line is 18,500 feet long and supplements 30 inch and 36 inch lines that are already in service. On this new line will be placed a surge tank to take the shock off the pipe. This work, which will cost approximately \$600,000, is being done by the construction forces of the Water Department.

A splendid example of co-operation was given by the people owning property on the right of way that had to be purchased for the new pipe line. The right of way bought was 30 feet wide by 17,500 feet long. The property had to be obtained from thirty owners and arrangements were made without any condemnation proceedings, with the exception of one case, which was a rather remarkable circumstance considering the fact that thirty property owners were involved. Another interesting fact was that this entire right of way was purchased for less than \$6000, evidencing the lack of any desire of the property owners to demand an exorbitant price for the property needed.

All of this work comes under the direction of W. Z. Smith, general manager of the Atlanta water works, who has been in a large sense responsible for the good service which the people of Atlanta have secured from their water supply system. Even though the old system was inadequate in capacity to meet the city's consumption, Mr. Smith has been operating it with an over-load at times as high as one hundred per cent; in other words, he has been running 40,000,000 gallons of water through a 20,000,000 gallon capacity plant. Mr.

has made it a rule that all employees hold their positions by good service and on merit only; no politics are permitted to interfere with this attitude and as long as any employee conducts himself on these lines he knows his position is safe. As an evidence of this W. M. Rapp, who is superintendent of construction and distribution, has been in the service 36 years, having worked his way up through all departments. Chas. P. Gramling, chief engineer of the River Pumping Station, entered the service 28 years ago as a coal roller, and J. R. Owings, chief engineer of the City Pumping Station, started as a machinist in the department 16 years ago.

Under the \$4,000,000 provided for schools in the bond issue voted there are eighteen different projects. Two senior high schools, one for boys and one for girls, are being constructed at an initial cost of \$750,000 each. At present but one unit of each structure is being built, and the cost of the fully completed structure will be approximately \$2,500,000 each. Four junior high school buildings are being erected at an estimated cost of \$250,000 each, with an ultimate cost of \$500,000 to \$600,000 each. One old senior high school building is being remodeled. Seven grammar schools for white children are planned at an initial cost running from \$125,000 to \$250,000 each. At present these structures will be erected without auditoriums, kindergartens or lunch rooms, all of which will be added later as additional funds are available. For negroes one large junior and senior high school is being erected at a present cost of \$400,000, while the fully completed structure will cost

\$750,000. Four elementary schools for negroes are being built at a cost ranging from \$150,000 to \$200,000 each. All of these have been designed so that additions can be made from time to time.

All of these new school buildings are fireproof construction and will represent in design and equipment the latest practices and improvements in modern school structures. They have all been designed under the supervision of A. Ten Eyck Brown, architect, Atlanta.

The Department of Sewers in Atlanta is spending \$1,250,000 for extensions of the system. Contracts to the value of approximately \$500,000 were awarded during 1922 for



LAYING 48-INCH CAST IRON PIPE SUPPLY LINE.

work to be completed in the spring of this year. These contracts include extensions of the Orme Street trunk sewers awarded to Wood-Rucker Construction Co. of Atlanta, at a cost of \$125,000; extension of Lloyd Street trunk sewer to MacDougal Construction Co. of Atlanta at a cost of \$125,000, and the Highland Avenue trunk sewer to J. B. McCrary Co. of Atlanta at a cost of \$85,000. Several other contracts for smaller units of work were also awarded. Next month it is planned to ask for bids on the continuation of the sewer extension work to the approximate value of \$400,000.

One of the most important improvements under the bond issue is that of providing for a new viaduct on Spring Street. This viaduct will materially facilitate traffic in the most busy section of Atlanta, as it will carry this traffic over the large number of railroad tracks that enter the center of the city. Its length is 1869 feet. The approaches will be built of reinforced concrete; the main spans will be of steel incased in concrete. The viaduct will have a total width of 60 feet with a 40 foot roadway in the center. The contract for its construction was awarded to the Nichols Contracting Co. of Atlanta, Ga., at its bid of \$514,000. The structural steel contract was awarded to the Virginia Bridge & Iron Co. of Roanoke, Va. and Atlanta, at its bid of \$103,000. The viaduct was designed by Harrington, Howard & Ash, consulting engineers, Kansas City, Mo., who have associated

with them in the work and as local representatives Robert & Co., engineers, Atlanta.

All of these improvements were outlined with a view to the steady and continuous growth of the city, and the plans have been developed so they may be added to as the requirements demand.

Gain in Lead and Zinc in 1922.

Mine and refinery output of lead in the United States increased in 1922, and the mine and smelter output of zinc each increased about 70 per cent, according to the Geological Survey. The output of soft lead by mines of the Mississippi Valley (including the small output of the Eastern States) was about 256,000 short tons and that of argentiferous lead by mines of the Western States was about 208,000 tons, a total of 464,000 tons. The corresponding figures for 1921 were 237,209 tons from the Mississippi Valley and 172,491 tons from the Western States, a total of 409,700 tons. The southeastern Missouri district made the largest output, nearly double that of any other. Its output was 184,000 tons, as compared with 175,160 tons in 1921. The Coeur d'Alene district of Idaho came next with about 98,000 tons, nearly the same as in 1921. Utah made an output of about 67,000 tons, a gain of 50 per cent over 1921.

The recoverable zinc content of ore mined in 1922 was about 442,000 tons, as compared with 256,746 tons in 1921. The output of the Eastern States was about 90,000 tons (80 per cent from New Jersey), that of the Central States about 272,000 tons, and that of the Western States about 80,000 tons, as compared with 67,711, 175,262 and 13,773 tons, respectively, in 1921. The upper Mississippi Valley region is credited with an output of about 18,000 tons, and the Joplin district with an output of about 254,000 tons. Oklahoma made the largest output, about 186,000 tons, more than twice as large as that of any other State. In 1922 Montana (almost wholly the Butte district) apparently produced about 57,000 tons, as compared with 11,638 tons in the Butte district in 1921.

\$500,000 Corporation to Establish Packing Plant.

Thomasville, Ga.—Papers of incorporation have been prepared for the Georgia-Florida Packing & Orchard Co., which will be organized with a capital stock of \$500,000 by W. H. Baxley of Waycross, Ga., J. E. Sansbury, Dothan, Ala., and others. Plans are being made for the establishment of a packing plant, which will involve the transfer to this city of a plant from Waycross and also one from Dothan.

The Thomasville plant will have a capacity of 250,000 cans of sweet potatoes per day, 500,000 cans of tomatoes, or 1,000,000 cans of berries, and will be able to handle the produce from 5000 acres of tomatoes, 5000 acres of pimento peppers and all berries or pears that may be available.

In addition to the local phase of the business, the company will plant 3000 acres of pineapple pears on land acquired near Panama City, Fla., the pears to be used for canning. It will put out also 20,000 acres of satsuma oranges adjoining its Florida property, and develop for its own use, as well as for the market, fertilizer deposits which it owns.

Contract Let for \$300,000 High School.

Washington.—Contract has been awarded to Michael Serretto of Washington and Boston for the erection of a \$300,000 high school building here, for which plans and specifications were prepared by A. L. Harris of this city.

The building will be 100 by 200 feet, 3 stories, of reinforced concrete construction, with concrete foundation and hardwood and wood block floors. The split system of heating and ventilating will be employed and in the construction and equipment steel sash and trim, metal doors and ornamental terra-cotta will be used.

Nearly \$57,000,000 Carried by House Bill for River and Harbor Improvements.

RECOMMENDATIONS OF BOARD OF ENGINEERS ACCEPTED BY OVERWHELMING VOTE—
LITTLE OPPOSITION EXPECTED IN SENATE—LIST OF PROJECTS IN THE SOUTH.

[Special Correspondence Manufacturers Record.]

Washington, Jan. 22.

With \$56,859,910 authorized by the House for river and harbor work during the current year, a decided, almost unprecedented, victory was achieved by the advocates of improved water transportation. The amount carried by the bill is practically the sum recommended by the Chief of Engineers, United States Army, in charge of the work, and it is significant that in spite of all ignorant and prejudiced opposition, inside of Congress and out, the affirmative vote was 196 to 73. No substantial or effective opposition to the bill as it passed the House is expected in the Senate, where the bill will probably come up at an early day.

The Director of the Budget had named \$27,625,760 as the sum that should be carried by the bill. It was completely demonstrated by the statements of congressmen and others at the Rivers and Harbors Congress held in Washington in December that no investigation had been made by the Director of the Budget as to the needs of the rivers and harbors, and no attempt was made by him to study the rivers and harbors problem. An arbitrary sum was hit upon, it was declared, by adding several previous appropriations and dividing by three, so as to arrive at some specific and definite figure. Congressman Newton, of Missouri, who has devoted great thought to a study of water transportation, covered the whole question in a striking speech at the Rivers and Harbors Congress and also led the debate in the House Friday. He pointed out that while the Bureau of the Budget had never made any investigation of the needs of the rivers and harbors, the engineers had thoroughly examined every detail of the situation, and so had the Committee on Rivers and Harbors, of which S. W. Dempsey, of New York, is chairman, and that the committee had voted unanimously in favor of the sum recommended by the engineers.

Under the circumstances it is considered likely that the bill as finally passed will carry the full amount recommended by the engineers.

In addition, there is an item of nearly \$7,000,000, as recommended by the Director of the Budget, to continue the work on the Wilson dam at Muscle Shoals, and \$5,986,600 for flood control of the Mississippi.

The amounts stated in the Annual Report of the Chief of Engineers as those that can be profitably expended during the fiscal year ending June 30, 1924, for the maintenance and improvement of rivers and harbors in the South are as follows:

Maryland—Baltimore Harbor and Channels, \$650,000.
District of Columbia—Potomac River at Washington, \$74,000.
Virginia—Ocoquan Creek, \$6,700; Rappahannock River, \$42,700; Mattaponi River, \$8,000; *Lockles Creek, \$4,100; Norfolk Harbor, \$550,000; Thimble Shoals Channel, \$74,500; James River, \$40,000; Pagan River, \$2,000; Waterway, Norfolk to Beaufort Inlet, N. C., \$500,000; Blackwater River, \$2,000; Meherrin River, \$2,000.
North Carolina—Pamlico and Tar Rivers, \$12,000; Neuse River, \$12,000; Swift Creek, \$800; Contentnea Creek, \$1,500; Trent River, \$1,500; Channel, Thoroughfare Bay to Cedar Bay, \$5,000; Beaufort Harbor, \$7,500; Waterway, Core Sound to Beaufort Harbor, \$30,000; Waterway, Beaufort to Jacksonville, \$10,000; Harbor of Refuge, Cape Lookout, \$20,000; Cape Fear River—above Wilmington, \$12,000; *at and below Wilmington, \$500,000; Northeast (Cape Fear) River, \$4,000; Black River, \$2,000.
*Indicates new projects.

South Carolina—Winyah Bay, \$40,000; Santee River and Estherville-Minim Creek Canal, \$4,000; Congaree River, \$10,000; Waterway, Charleston to Winyah Bay, \$18,000; Wappoo Cut, \$2,500.

Georgia—Savannah Harbor, \$1,060,000; Savannah River—above Augusta, \$1,000; at Augusta, \$2,000; below Augusta, \$22,000; Waterway, Beaufort, S. C., to St. Johns River, Fla., \$42,000; Satilla River, \$1,800; St. Mary River, \$1,800; Altamaha River, \$15,000; Oconee River, \$12,500; Ocmulgee River, \$12,500; Brunswick Harbor, \$230,000; Flint River, \$55,000; Chattahoochee River, \$125,000.

Florida—Fernandina Harbor-Cumberland Sound, \$3,000; St. Johns River—Palatka to Lake Harney, \$10,000; Jacksonville to the ocean, \$603,000; Oklawaha River, \$3,000; Indian River, \$5,000; Miami Harbor (Biscayne Bay), \$32,500; Key West Harbor, \$70,000; Kissimmee River, \$5,000; Caloosahatchee River, \$35,000; Charlotte Harbor, \$5,000; Sarasota Bay, \$15,000; Anclote River, \$14,000; Tampa Harbor, \$495,000; St. Petersburg Harbor, \$17,000; Apalachicola Bay, \$12,000; Apalachicola River, \$25,000; Channel, Apalachicola River to St. Andrews Bay, \$21,500; St. Andrews Bay, \$2,000; Choctawhatchee River, \$7,000; Holmes River, \$1,680; *La Grange Bayou, \$28,500; Blackwater River, \$25,600; Escambia and Conecuh Rivers, \$3,200; Pensacola Harbor, \$20,000; removing water hyacinth in Florida waters, \$10,000.
Alabama—Alabama River, \$122,000; Coosa River, \$5,000; Mobile Harbor, \$376,400; Black Warrior, Warrior and Tombigbee Rivers, \$64,000; Tombigbee River—mouth to Demopolis, \$18,000; Demopolis to Walkers Bridge, \$4,000; removing water hyacinth in Alabama waters, \$2,500.

Mississippi—Pascagoula Harbor, \$76,000; Gulfport Harbor and Ship Island Pass, \$116,000; Pascagoula River, \$10,000; Yazoo River, \$16,000; Tallahatchie and Coldwater Rivers, \$10,000; Big Sunflower River, \$12,000; Steele and Washington Bayous and Lake Washington, \$2,500.

Louisiana—Bayou Plaquemine, Grand River and Pigeon Bayous, \$20,000; Bayou Grosstete, \$5,000; Bayou Teche, \$125,000; Waterway, Mississippi River to Bayou Teche, \$675,000; Waterway, Calcasieu River to Sabine, \$500,000; Bayou Vermillion, \$10,000; *Calcasieu River and Pass, \$25,800; Johnsons Bayou, \$3,000; *Tensas River and Bayou Macon, \$9,200; Boeuf River, \$5,000; Bayou Bartholomew, \$2,500; Bayous D'Arbonne and Corney, \$2,000; removing water hyacinth in Louisiana and Texas waters, \$30,000.

Texas—Galveston Harbor, \$90,000; *Galveston Channel, \$870,000; Texas City Channel, \$150,000; Port Bolivar Channel, \$20,000; Houston Ship Channel, \$1,100,000; Double Bay Bayou, \$7,000; Anahuac Channel, \$5,000; Mouth of Trinity River, \$1,000; Turtle Bayou, \$10,000; Cedar Bayou, \$5,000; Clear Creek, \$4,000; Dickinson Bayou, \$5,000; West Galveston Bay-Brazos River Canal, \$5,000; Channel from Brazos River to Matagorda Bay, \$10,000; Channel from Pass Cavallo to Aransas Pass, \$20,000; *Channel from Aransas Pass to Corpus Christi, \$760,000; Freeport Harbor, \$100,000; Port Aransas Harbor, \$180,000; *Harbor at Sabine Pass and Port Arthur Canal, \$800,000; Sabine-Neches Canal, \$150,000.

Mississippi River—South Pass, \$510,000; Southwest Pass, \$902,000; Ohio to Missouri Rivers, \$1,000,000; Missouri River to Minneapolis, \$1,100,000; removing snags and wrecks, \$25,000.

Ohio River—Lock and dam construction, \$7,000,000; Open-channel work, \$526,000; Allegheny River—\$5,000. *Monongahela River—\$2,000,000.

Missouri River—Mouth to Kansas City, \$1,500,000; Kansas City to Sioux City, \$25,000; Sioux City to Ft. Benton, \$15,000.

Tennessee River—Above Chattanooga, \$20,000; Chattanooga to Riverton, \$255,000; below Riverton, \$130,000; Survey, \$200,000.

Cumberland River—Above Nashville, \$535,000; below Nashville, \$460,000.

Arkansas—Red River, below Fulton, \$100,000; Saline River, \$2,000; White River, \$22,500; St. Francis and L'Anguille Rivers and Blackfish Bayou, \$9,000.

Arkansas and Louisiana—Ouachita and Black Rivers, \$425,000.

Arkansas and Oklahoma—Arkansas River, \$35,000.

Arkansas and Missouri—Black River, \$15,000; Current River, \$4,500.

Missouri—Osage River, \$10,000.

(*) Indicates new projects.

The following table gives the amounts recommended by the Chief of Engineers and the Director of the Budget, respectively, for river and harbor work and related subjects:

AMOUNTS RECOMMENDED FOR RIVER AND HARBOR WORK AND RELATED SUBJECTS		
	By the Chief of Engineers	By the Director of the Budget
Rivers and Harbors:		
Maintenance and improvement.....	\$56,590,410	\$27,625,760
Surveys, examinations and contingencies	500,000	456,850
Flood Control:		
Mississippi River	5,990,000	5,986,600
Sacramento River	500,000	499,900
Wilson Dam, Tennessee River.....	7,500,000	6,998,800
Supervisor, New York Harbor.....	397,000	196,640
Survey, Northern and Northwestern Lakes	138,000	93,900
Expenses, California Debris Com....	18,000	14,950
TOTALS.....	\$71,633,410	\$41,873,400

The following table, which is derived from figures compiled by the Statistical Division, Board of Engineers for Rivers and Harbors, shows the tonnage and the value of the water-

borne commerce of the United States for the calendar years 1920 and 1921, all known duplications having been eliminated.

WATER-BORNE COMMERCE OF THE UNITED STATES,
CALENDAR YEARS, 1920-1921

Grand Divs.	1920		1921	
	Short Tons	Value	Short Tons	Value
Atlantic Coast	153,812,273	\$12,776,125,648	131,028,466	\$8,726,050,831
Gulf Coast	32,756,801	2,372,162,448	37,941,854	1,633,023,257
Pacific Coast	28,372,373	1,995,928,020	26,515,096	1,466,335,318
Great Lakes				
Ports	111,139,686	1,406,111,607	71,460,170	957,776,428
Rivers, Canals, etc.	43,187,893	960,187,893	40,045,556	833,578,608
Grand Total	369,269,026	\$19,510,496,495	306,991,142	\$13,616,758,442

The amount—\$56,590,410—recommended by the Chief of Engineers for the maintenance and improvement of rivers and harbors in the fiscal year 1924 is equal to less than 18½ cents for each ton of weight and less than 42 cents for each \$100 of value of the commerce carried on those rivers and harbors in the calendar year 1921.

Secretary Thompson, of Rivers and Harbors Congress, Hopeful of Favorable Action by Senate.

[Telegram to Manufacturers Record.]

Washington, D. C., January 22.

The National Rivers and Harbors Congress held conventions both in March and December of 1922, in both of which it went squarely on record in favor of the appropriation each year of the full amount asked for by the army engineers for the maintenance and improvement of rivers and harbors. Naturally, therefore, it is highly gratifying that the course of action advocated in our resolutions was adopted by Congress in the act of last year and by the House of Representatives in the bill passed on Friday of last week.

It is always difficult to foretell the action of the Senate, especially when the end of a short session is approaching. There will be opposition, as there always is, but it is my best judgment that if the matter comes to a direct vote the Senate will approve the amount named by the House; but there is always the possibility of a filibuster, the consequences of which no one can predict.

The National Rivers and Harbors Congress believes with President Harding that "in America we have too long neglected our waterways," and will continue to use its best efforts to secure adequate appropriations for their maintenance and improvement.

S. A. THOMPSON.

\$250,000 Carbon Company Organized—Will Erect Plant.

Organization of the Gulf Carbon Co. with a capitalization of \$250,000 has been effected with Samuel A. Vervalen, Prest.; W. D. Wilson, Vice-Prest. and William A. Gillespie, Secy.-Treas., all of Baltimore.

The company plans to establish a gas burning plant at Monroe, La. for a daily production of 8200 pounds of carbon black.

A site of 3 acres will be provided for the plant and its cost is estimated at \$180,000. It will consume about 8,200,000 cubic feet of gas per day. H. C. Walton is the general manager and resident engineer.

Contract Let for Grading Coal Mine Railroad.

Sanford, N. C.—The Carolina Coal Co. has awarded contract to Summers & McAuley for grading three miles of railroad to connect the mines at Coal Glen with the Norfolk Southern and the Southern railroads on the west side of the river, between Cummock and Gulf.

Headings in the mine are now driven far enough into the coal to make at least 100,000 tons available for mining as fast as it can be moved from the colliery, and it is this situation that necessitates the construction of the railroad, which will be completed in 90 days.

Wholesale Prices in December.

Although the tendency of wholesale prices was upward in December, no change from the general level of the previous month is shown by the weighted index number compiled by the Department of Labor. This index, which includes 404 commodities or price series taken in representative markets, and which is weighted according to the relative importance of such commodities, rounds off to 156 for December, the same figure as announced for November.

While there was no increase in the general price level as measured by the index number, appreciable advances took place among certain farm products, clothing materials, chemicals, and housefurnishing goods. Among farm products, corn, oats, rye, wheat, hogs, lambs, cottonseed, flaxseed, milk, peanuts, onions, and potatoes all showed small price increases over the month before. The increase in this group as a whole approximated 1½ per cent. Cloths and clothing, due to increases in cotton woven goods, cotton yarns, worsted yarns, and raw silk, averaged about 1 per cent higher than in November. Chemicals and drugs were 2¼ per cent higher and housefurnishing goods 1¾ per cent higher than in the month before. A small increase was also reported for food articles.

To offset these price increases, there were decreases among important fuel and lighting materials and among metals and metal products. Fuel and lighting averaged almost 1 per cent and metals 1½ per cent lower than in November. No change in the general price level was reported for building materials or for miscellaneous commodities.

Of the 404 commodities or series of quotations for which comparable data for November and December were collected, increases were shown in 170 instances and decreases in 70 instances. In 164 instances no change in price was reported.

INDEX NUMBERS OF WHOLESALE PRICES; BY GROUPS OF COMMODITIES. (1913=100.)

	1921		1922
	DECEMBER	NOVEMBER	DECEMBER
Farm products	120	143	145
Foods	136	143	144
Cloths and clothing	180	192	194
Fuel and lighting	199	218	216
Metals and metal products	113	133	131
Building materials	158	185	185
Chemicals and drugs	127	127	130
Housefurnishing goods	178	179	182
Miscellaneous	121	122	122
All commodities	140	156	156

Comparing prices in December with those of a year ago, as measured by changes in the index numbers, it is seen that the general level has risen 11½ per cent. Farm products show the largest increase, 20¼ per cent. Building materials have increased 17 per cent, metals 16 per cent, fuel and lighting 8½ per cent, and clothing 7¾ per cent in price in the year. Food articles, chemicals and drugs, housefurnishing goods, and miscellaneous commodities all show smaller increases compared with prices of a year ago.

Will Manufacture Gypsum Products.

Rotan, Tex., Jan. 19—[Special.]—One of the largest plants in Texas for the manufacture of gypsum products, including cement, plaster and wallboard, will be built here by the Universal Gypsum Company of Chicago which has purchased a deposit of gypsum for a consideration of \$80,000. It is stated that the plant will be modern and that it will give employment to about 130 men. Power will be obtained from a high tension electric transmission line which is now being built from Abilene to Rotan.

New Church Building for Tuscaloosa.

Tuscaloosa, Ala.—The First Baptist Church has engaged N. O. Patterson of Florala, Ala., to superintend the construction of a \$150,000 building which it will erect. Plans and specifications are being prepared by R. H. Hunt of Chattanooga; it is expected that they will be submitted for approval within a few weeks time.

Gospel of Good Roads Proclaimed at Chicago Highway Show and Congress.

MEETING MARKED BY LARGE ATTENDANCE AND CONSTRUCTIVE WORK—MOST COMPREHENSIVE EXHIBIT OF ROAD BUILDING MACHINERY—RESOLUTIONS CALL FOR COORDINATION OF RAILWAYS, WATERWAYS AND HIGHWAYS.

By EDWARD JEROME DIES.

Chicago, Ill., January 20.

Across the page of time flashes a new gospel. It is the gospel of good roads. It is old in years, for it came down to us from ancient Rome. But it is new in application, so new that its practice conscripts the best minds of a nation.

By the magic of this new gospel all America is being converted. For it visualizes a nation locked together by a network of great, uniform arteries. It tells how distance is eliminated, how the foodstuffs of a country can flow easily to market, how the products of factory, mine and mill may be whirled to their destination over motorlanes unchoked by the usual congestion. It is a gospel that symbolizes a greater America.

Thirty thousand good roads exponents marched on Chicago this week, bringing the new gospel with them. The builders brought with them, too, the biggest exhibit of roads machinery and materials ever shown in this or any other land. It packed the vast Coliseum from basement to roof. The exhibit included every kind of practical road building machinery known to modern man. It ranged from 100 ton road machines down to the most delicate surveying instruments. The imposing outlay was displayed under a sunburst of electrical flares and amid a setting of tropical palms and flowers. The exhibit told its own story of modern science. There were the most up-to-the-minute methods of road laying; and the particular characteristics of macadam, dirt, gravel, concrete and other materials were graphically set forth.

It was a consolidated road builders meeting. The American Road Builders' Association was holding its thirteenth American Good Roads Congress, Twentieth Annual Convention and Fourteenth National Good Roads Show and Highway Industries Exhibit. Everything bearing on highways was represented.

Results, in spite of desultory squabbles over ways and means, were the most sweeping ever attained. Hundreds of problems, big and small were solved; difficulties ironed out and new means of closer co-operation between neighboring states developed.

"This congress," said Thomas J. Wasser, president of the American Road Builders' Association, "will be followed by the greatest era of road building in history. The show has been of tremendous educational value. The volume of business done exceeds all others of the past." All other leaders expressed like views as the army turned homeward this week-end.

There is \$1,250,000,000 of the public's money to be spent on highways this year. So the good road leaders decided early in the deliberations that their biggest immediate job is to unify American roads. To this end, they pledged themselves at the initial session to win thirty foot graded roadways, uniform traffic laws in all states, uniform direction and caution signs and warning lights, and the federal laws necessary to public highway safety.

Besides, they began a rigorous campaign to connect national and state road systems with waterways and to see that highways are used as aids to existing transportation lines rather than their competitors.

"Rapid transportation is the vital need in the United States today," said Mr. Wasser in opening the big meeting.

"This association must bend its efforts to co-ordinate all transportation facilities. We must effectively connect our rail lines with our carriers at sea. We must make our highways reap the benefit of hundreds of millions spent on inland waterways, and we must turn the motor truck into a railway feeder and distributor instead of a destroying competitor."

Highway building proper, he added, is no longer the big transportation problem because both state and national highway systems are so well launched. Abuse of roads already built, he said, has become a new national problem, and he recommended uniform penalties in all states to regulate speed and weight of vehicles and to license persons who operate them. He also recommended directionary and cautionary signs be standardized, and all other posting of signs on rights of way be made unlawful and subject to fines. Motor vehicle taxation or license fee should not, he said, be greater than is required to provide necessary road maintenance funds.

Thomas H. MacDonald, chief of the United States Bureau of Public Roads, was one of the active leaders of the big meeting. Nor did he mince words in driving home his arguments. He assailed the element of politics and launched a sort of an anti-political crusade in behalf of the good roads movement.

"It is unfortunate that most highway troubles of today," he said, "lie in suspicions aroused in the public by unscrupulous highway leaders in the past. We must hereafter render full account to the public of all our acts and purposes. It can be fooled for a while on its road program, but widespread opposition invariably is the result."

"When we fail to carry out our construction promises, fail to let the public know the extent of improvements planned, the mileage and cost, and encourage the belief that roads are a personal achievement, rather than a public development, we are simply storing up trouble."

"The public is both employer and partner in our work, and has a right to know how, by whom, and for what purpose money supplied is being spent."

"From the point of view of the whole American community there is no doubt that the 23,000 miles of federal aid roads completed by December of last year will return more than their cost. Possibly they have already saved their cost to the 100,000,000 people they serve. To do it they would have only to save each person 1 cent a week since their construction was begun six years ago."

At this time, he said, states should reconsider the wisdom of levying part of paving construction costs on abutting properties and more equally divide that cost between owners of land and operators of motor vehicles, according to the service the roads render.

Pronouncing any attempt to hamper the good roads movement a "penny wise, pound foolish" policy, Bainbridge Colby, former secretary of state, declared at the annual banquet that the construction of good roads must go on. Federal aid, he said, was justified if only from the standpoint of national defense. The country's highway system, he said, is the only successful public ownership experiment ever attempted on so huge a scale. Narrow pavements in this age of multiplying traffic are a menace to every one using them.

he said, urging broader lanes to care for the motor vehicle demand.

"Highways, though publicly owned," he said, "have been given unqualified approval by our people. When there is talk of taking over the railroads, keen and passionate opposition is at once manifest. The same is true when federal operation of mines is suggested. We must look to it that our stewardship of the public highways shall not bring public management into disrepute in this enterprise, where every taxpayer is a stockholder."

Mr. Colby said any plan to revise the present policy of government aid to the states in road building should be viewed with suspicion. The Federal aid policy now obtaining, which matches dollar for dollar the money spent by states on the interstate roads in their territory, is sound and should not be interfered with.

"It is unthinkable that the good roads movement should be halted or even retarded by lack of funds. To do this would be like trying to induce a child who has learned to walk to go back and crawl. Upwards of 12,000,000 motor vehicles are now in the hands of users. Phenomenal as has been our development of good roads in the last few years, we are still far behind in providing pavements to keep pace with automobile growth. Any curtailment of road funds, then, despite America's objection to increased taxes will mean economic failure, for it will hit directly the first industry of the land—the automobile industry—as well as our vital transportation system. Saving money by discontinuing the building of roads is sure imbecility."

The South was well represented. It brought a great volume of enthusiasm. Louisiana had the largest official representation. Governor John M. Parker had appointed 105 delegates. Southern delegates were warm in their praise of the good work being done by the MANUFACTURERS RECORD and other leading publications in fostering the good roads movement. Many dropped in at the RECORD booth to express their views.

Nations represented included Mexico, Chile, Argentina, England, Brazil, Denmark, Holland, Czecho-Slovakia, France, Spain and Canada.

Speakers included Claude N. Sapp, formerly assistant attorney general of South Carolina; Clifford Older, state highway engineer, Illinois; B. H. Piepmeyer, state highway engineer of Missouri; C. M. Upham, state highway engineer of North Carolina, and half a dozen officials of the Federal Bureau of Public Roads.

Most important among the resolutions adopted was one for the unification of all transportation systems—the railroads, waterways, and highways. That there may be opposition to this program was recognized by the resolutions committee, but the object of the resolution as expressed is "to secure to the people transportation in its best and cheapest form."

In another resolution adopted the meeting memorializes Congress to authorize the United States to participate in the International Road Congress which meets in May in Seville, Spain. The movement has the endorsement of President Harding and cabinet members.

Frank Page, brother of the late Walter Hines Page, former ambassador to England, is mentioned prominently as the next president of the Association. Election takes place in New York in May. The nominating committee chosen consists of John Tate, Raleigh, N. C.; J. H. Crawford, Washington, D. C.; R. Keith Compton, Baltimore; F. A. Rilmer, Newark, N. J.; and Lewis S. Louer, Chicago. The next convention will be held in Chicago.

Substitution of a gasoline tax for present registration fees and other forms of automobile and road taxation was proposed by J. N. Mackall, commissioner of roads of Maryland. He declared "there can be no more unscientific and inequitable way of measuring to the users of roads the benefit they

derive from them than the present methods of registration." He argued that, when an accurate standard of such measurement is devised and applied "within a few years the motor vehicle will pay the cost of maintaining the improved roads in the United States." The fuel tax, he suggested, is the only such accurate standard possible.

Bauxite Production Doubled in 1922.

The domestic production of bauxite in 1922 was at least twice as large as in 1921 and may reach a total of not less than 300,000 long tons, according to the Geological Survey. This quantity is about half of that normally consumed, yet the increase in output is encouraging, for it reflects a larger demand by all the consuming industries, particularly the abrasives industry. The operations in the Arkansas and the eastern fields were larger, though in Arkansas car shortage in the fall limited to some extent the production.

During the first six months of 1922 the imports of bauxite averaged about 1500 long tons a month, but since June they have been more than 3000 tons a month. The prices of domestic dried bauxite ranged from \$6 to \$10 a ton, but were lower in the last half of the year. The prices of pulverized and dried bauxite have ranged from \$12 to \$15 a ton, and of calcined from \$20 to \$25 a ton. The effect of a shortage of coal is reflected in an increase in the price of calcined bauxite during the latter part of 1922. Under the new tariff the duty on bauxite is \$1 a ton, whereas under the old tariff it was on the free list.

Refining Plant at Cisco to Resume Operations.

Cisco, Tex.—The plant of the Liberty Refining Co., located here, has been acquired by the Eastland-Pioneer Oil Refining Co., R. E. Whitlock, general manager, and will resume operations about February 1. Work is being pushed to increase its capacity. Production will begin at the rate of 6000 barrels per day.

Negotiations have been closed for the operation of a 16-mile pipe line which extends from Brownwood to the North Brown County oil field. This will enable the company to take all of the North Brown County production, piping it into Brownwood and shipping from there to Cisco by tank cars. The company also contemplates laying 4 miles of gathering lines at Pioneer, with loading racks and pumps, and 5 miles of gathering lines at Moran with loading racks and pumps.

Spanish Mission Apartment Building for El Paso.

El Paso, Tex.—An apartment building to cost \$175,000 will be erected here by the Orndorff Construction Co., H. C. Poske, Engineer, work to begin within a short time. The building will be 72 by 120 feet, 5 stories with roof garden, and will contain 50 apartments. It will be of Spanish Mission design, having a concrete skeleton frame, hollow tile walls, concrete foundations, tile and concrete slab floors, composition roof and stucco exterior finish.

Plans and specifications will be prepared by the owner, who will also erect the building.

City Club of Baltimore to Erect \$500,000 Building.

Drawings have been delivered to a number of contractors and bids will be received until January 30 for the erection of the building which the City Club of Baltimore will erect at St. Paul and Saratoga streets.

The structure will be 70 by 110 feet, 6 stories, and will cost about \$500,000. Clyde N. and Nelson Friz are the architects and Herman F. Doelman and Charles L. Reeder are the structural engineer and consulting engineer, respectively.

Furniture Exposition at High Point Has Record Breaking Week of Sales.

CITY IS ACTIVE ALSO IN TEXTILE AND OTHER INDUSTRIES.

[Special Correspondence Manufacturers Record.]

High Point, N. C., January 22.

"All records for furniture sales both as to price and volume were broken last week on the Southern Furniture Exposition market," states Charles F. Long, manager of the building. "Not only are Southern manufacturers receiving orders of unprecedented volume but other manufacturers represented by exhibits here are sharing in the contracts. In a single week more than 400 individual buyers registered, and Saturday night all the hotels in the vicinity reported they were filled with reservations for next week, and overflow crowds are being taken care of in neighboring cities. Orders were placed up to Saturday at closing for furniture estimated to cost in excess of \$3,000,000, and many manufacturers turned down business based on future delivery. Practically all of the orders accepted are for immediate or near future delivery, as none of the manufacturers are anxious to sign for delivery for any great period ahead. I did not hear of a single complaint because of increase in prices over those prevailing a short while ago due to the increased cost of manufacture, and this seems to indicate that the public generally is buying freely. Many buyers from Southern states placed large orders, reflecting improved conditions in the territory."

Meanwhile additional buyers continue to pour into the town, since the exposition will continue throughout this week. Many buyers have delayed their visits until the end of the week, and indications are that sales will surpass the high total established in the first week. The heavy buying movement now follows record breaking business during the fall months, which has resulted in the operation of practically all furniture factories at capacity and overtime, with many working day and night in an endeavor to supply the demand for their products, coming from all sections of the country. And the additional orders placed during the exposition will insure continuation of operations on the present scale for many months to come.

An outstanding feature of the exposition is the high quality of furniture shown. The public, it is said, has learned to appreciate the value of superior furniture and the majority of the 120 individual exhibits are made up of high class goods. Practically every foot of space in the mammoth 10-story building, with floor space of 6 acres, is taken, and exhibitors are generally delighted with the results. The early buying in such volume is taken to indicate the low stocks of retailers throughout the country—as all sections were well represented—and the general faith the merchants have in continuation of heavy purchases as a result of the nation-wide house building boom under way.

The exposition emphasizes High Point's importance as the second largest furniture manufacturing center in the country. It is housed in a huge fireproof structure with approximately 6 acres of floor space devoted exclusively to exhibits.

In addition to its 40 furniture factories and allied plants High Point is an important textile center, and it has many important industrial plants of great variety. With demand steadily increasing in practically every line the plants are running full time and giving employment to thousands.

An extensive street paving program is under way, which when completed will give the city about 30 miles of improved streets. In addition the state and county road work in the locality is providing avenues of trade in every direction.

The recent extension of the city limits has resulted in

increasing the population to about 20,000 and according to F. J. Sizemore, secretary of the Chamber of Commerce, there are here a greater number of industrial enterprises than in any city of the same size in the country.

M. J. Wrenn, of the High Point Furniture Company, has just announced plans for doubling the size of the plant which is specializing in bed room furniture. The work will be undertaken by the company's forces. A warehouse to cost \$20,000 will also be erected. The necessary new machinery is now being purchased.

"Demand for mirrors is excellent," states Frank Wineskie, of the Southern Mirror Co., adding. "The only drawback to our business is the acute shortage of plate glass. As a result prices have advanced sharply. I look for continued scarcity, since the demand is steadily increasing and there is no additional output in sight either in this country or abroad. The tariff is in no way responsible for the increased prices. There has not been a new plate glass plant built so far as I know in the past 15 years, the only improvements being to long established factories. Imports of plate glass are the highest on record. There has been increased demand from all three of the great consuming industries, mainly the automobile, building and furniture, and all glass plants are working at capacity in an endeavor to meet the needs."

Activity in the manufacturing plants in the section has stimulated the demand for products of the High Point Machine Works according to W. L. Smith, secretary-treasurer. F. J. Bartlett, of the Industrial Electric Co. and the National Machine & Electric Co., reports business very good with difficulty experienced in getting supplies.

The Snow Lumber Co., A. B. Parker, secretary, reports an unusual demand for building materials of all kinds as a result of the big program of house building under way in the vicinity. The Crescent Lumber Co., which was recently organized with a capital of \$150,000 by W. H. Gibson, A. Lee Gibson and J. W. Slate, reports the retail trade brisk, with purchasers coming by truck to haul away supplies for a radius of 40 to 50 miles of this city.

As a result of the stimulated activity among textile manufacturers the North Carolina Reed Co., controlled by F. & B. Suter Co., Pawtucket, R. I., is working at capacity producing all kinds of loom reeds and slasher combs and specialties. "While 1922 was the best year we've had," states George A. McFetters, general manager, "we expect an even greater volume of business this year."

W. H. Slane, manager of the Slane Hosiery Mills, states that his plant is working at capacity with 135 persons engaged in the production of women's and men's cotton hosiery, the output of which has been sold ahead for 90 days.

"We have all the business we can take care of for the next 60 days," reports R. T. Amos, of the Amos Hosiery Co., and prices give a fair margin of profit."

C. L. Amos, of the Melrose Hosiery Mills, has begun the production of hosiery after re-equipping an old plant. Upwards of 150 persons are now working at the Crown Hosiery Mills. All the other textile plants in the vicinity are alive with activity, with sufficient orders in hand to insure capacity operations for the next 90 days.

A. E. Taplin, civil engineer, specializing in road and street work, reports 1922 a year of great activity in his line and judging from the work now contemplated the volume this year will be even greater, he states.

Is Governmental Interference Putting a Premium on Railroad Inefficiency?

[Recently a private investigator asked a number of prominent business men and students of business problems to write a short analysis of the transportation problem from the practical viewpoint. The letter published below was in answer to this inquiry. It is of such interest even though we do not agree with all its conclusions that we asked the privilege of printing it, (omitting the address, and the signature), on the ground that our readers have a right to hear every side of important economic questions.—Editor Manufacturers Record.]

I have carefully noted your favor of December 2 and I am very glad to respond to it, except that the subject requires a great deal of thought and a great deal of investigation to answer it properly, which I have not the time to do, so you will please accept these as hurried views which are all I can give you at this time.

In the first place, back in 1900 and 1902, it grew to be fashionable for all of the uneducated politicians in the United States, who had nothing else to talk about, to jump on the railroads. Whenever a campaign speaker fell short of anything to say, with waving arms and raucous voice, he could immediately interest his crowds in the idea that the managing by the Government of all the railroads in the country would be the cure of all the ills from which we suffered. The same amount of thought and brains which actuated the old itinerant patent medicine vender were used—no reasons, no arguments, but the utterance of a bunch of conclusions, accompanied by the beat of tom-toms and the burning of flimflam lights. As usual, the patent medicine sold in great quantities. The American public voted to regulate the railroads.

At the time this regulation was suggested, the railroads of the United States, as compared with those of any other country in the world, whether privately or publicly owned, had been constructed at the least cost per mile and were hauling one ton of freight one mile cheaper than any others; they were paying the highest wages known in the world and were giving the best service; all of this in spite of the enormous stretches of non-tariff producing territory covered and served by the railroads. The truth of these statements is most easily gained by studying the report of the Commission sent out by the German Government to examine all the railroads in the world and find out those which were the most efficient, so that Germany could follow them. I can give you facts and figures bearing out the above statements.

Therefore, in this condition, without there being in the world any higher standard to which our railroad executives could be pointed, the man who whittled around the country grocery store undertook by his vote, to improve conditions; the result is what we have today, or at least what we have had for the last six years.

The railroad executives can't run their roads, because politicians dictate to them on all sides and nobody is responsible. The men in the coal business in the New River, Kanawha and Logan fields of West Virginia while the country has threatened to perish from a lack of coal, have had a car supply of less than 20 per cent, nor does this begin to be the worst of it. The school of experience, from which grew our great railroad executives, has been changed into a political maelstrom, so that the young man who starts in the railroad service today knows that the rules set up by the Government for the administration of the railroads will prevent him from occupying the positions of our great railroad executives, such as Ripley, Hill and Harriman.

The great executives of our railroads today are looking for men who will not only obey the orders of the company, and learn how to railroad, but who must also obey the rules of unions, "how not to railroad," and the rules of the Interstate Commerce Commission, "how to play politics," and the

bait on the hook is not sufficiently great for the young men of ability and intelligence to commit their fortunes to the railroad service.

As I write you, there hang on the walls of my office pictures of intimate friends; one, a vice president of a great system, who started as an agent of a small station in New Mexico; another, a general manager, who at one time drove a bus between a depot and a boarding house in Kansas; another, a general manager, who was a telegraph operator; a great railroad president—one of the greatest—who started life carrying hat boxes for a women's hat trimmer; another railroad president who started as a clerk in a freight office; and still another railroad president who used to carry water in a bucket to the men who were doing construction work. The opportunity for such advancement under the present regulation is impossible, and capital will not be invested in railroads, as there is an opportunity for them to gain more by buying Government bonds than could be gained by investing in railroads. I am, therefore, opposed to all Government regulation of railroads.

Answering your questions:

1. Should the Transportation Act be repealed?

I think it should not as long as the Government is to control the railroads. This act seems to have been the one act which considered the view that the railroads were an important factor in the development of the United States, and that either the railroads had some rights which had to be considered, or the public, served by the railroads, was to be considered, and at least for the first time the needs and rights of the roads were taken into consideration. This act is yet young; there may be many things that need to be changed in it, but it certainly should not be, in my judgment, repealed.

2. Should the principle of reasonable return on railroad investment be maintained?

My answer is yes. I can't see how it is possible for the railroads to continue to live unless in some way the politicians take away from the railroads the management and make themselves responsible for such mismanagement as is the consequence of their conduct. A reasonable return is not enough. The railroads of the United States were not built for reasonable returns—they were built with the hope of speculative returns, and, while many of the roads which were planned and built by private capital came to disaster, and in some cases cost the original investor his total investment, yet the courage of the public was such that if permitted to manage its own business it was not difficult for good management to get the necessary money not only to build but to develop our transportation system. The politician today is expected, in response to the many cures for the railroads' troubles, to decrease the freight rate and increase the pay roll, and remove the responsibility which the Government has assumed in its effort to run the railroads. These things cannot be done. The expenses of the railroads must be paid in freight rates or in taxes, both of which are paid by the public. If the railroads were put in the shape they were before the Government began to regulate them and turned over to the private owners, we could get transportation for coal and other material things, and the public would be

served without the necessity of the Government guaranteeing anything except law and order.

3. Should the Interstate Commerce Commission be deprived of the right to issue priorities?

To this I answer, no, because the present mal-administration must have somewhere a power to provide the public with necessities, such as food, coal, and other fundamental needs, without which the country cannot move. If our transportation system, under Government control, keeps on running as it now is, the Interstate Commerce Commission will probably have all of its time devoted to giving priorities to the vital necessities of life.

4. Should freight rates be lowered irrespective of the effect on general railway finance?

To this I answer, no. In the original regulation of railroads it was thought, or taught, that there was a reservoir somewhere from which the cost of operating the railroads could be drawn. The people then did not, nor do they now, seem to understand that the railroads must have proper revenue to operate. The ignorant man on the street clamors loudly for union contracts between the railroads and the man. He has no knowledge of the inefficiency such as union contracts make; he has no knowledge of the cost that such contracts are to the railroads, nor can such a man possibly conceive that these costs, both the cost of inefficiency and the cost of mismanagement, must come out of the pocket of the public, and that there is no reservoir from which the railroads can draw the revenue necessary to operate except from the public's pocket. If the necessary money is not derived from freights, it must come from taxes. In either case the public pays. The effect on railroad finance would, in itself, be disastrous. This is the question you directly ask, but the effect on the service to the public would be even more disastrous. Transportation is one of the biggest problems presented to the public today. Those who were thinking people

saw the condition of the Wilson Administration and transportation during the war, and saw that the big factor in winning the recent war was the problem of getting transportation. Anything which hurts our transportation hurts the people.

It is no argument to go back to what the people on the other side used to say, that the railroads before Government regulation did a great many things they should not have done; all that is true. There were a good many cases in which bad habits had grown up, but nevertheless, with all these bad habits, the railroad systems in the United States were functioning in the highest degree of efficiency known to the world, and it was the duty of the American people to have cured the faults, and not to have killed the railroads, which they have practically done, because in killing the railroads they are naturally killing themselves. The theory that was carried out is somewhat like the man who had a horse that misbehaved, and, instead of curing the horse of his faults, he shot him.

In regard to ship subsidy legislation, I have very much the same views. We had the finest mercantile marine in the world some years preceding the Civil War; we began to regulate it, and now we have regulated it out of existence. This is just the pass to which the railroads will eventually come. If today we would expunge from our statute books the laws which are placed there to regulate our merchant marine, the business men of the United States would probably find a way to meet their problems, but as long as the Government regulates the shipping, tells what men are to be employed and what service and what duties they are to perform, so long must the people pay for that privilege. If there is any matter which the Government has attempted to regulate, which has been benefitted thereby, it is without my realm of knowledge.

Baltimore Awards Contract for \$1,500,000 School.

Carrying out its school building program, which will involve an expenditure of more than \$21,000,000 as represented by two authorized loans of \$6,000,000 and \$15,000,000, respectively, the City of Baltimore through its Board of Awards has let contract at \$1,124,200 to J. Henry Miller, Inc., a local contractor, for the erection of the Forest Park Senior-Junior high school building at Hawthorne and Clarendon avenues.

Plans and specifications for the building were prepared by Parker, Thomas & Rice of Baltimore, and its erection and equipment will probably entail an expenditure of \$1,500,000. The building will be U-shaped, the main structure to be 373 feet long and the longest wing 164 feet. It will be 4 stories, with a wing in the rear, 113 by 165 feet, for a gymnasium, power house and lunch room. There will also be an auditorium wing to seat 1800, and an industrial arts building,

93 by 275 feet, 1 story, of factory construction and lighted by a series of skylights in the roof.

The building will be of brick, with reinforced concrete columns and floors, the latter to be finished with wood and terrazzo. It will contain 32 class rooms, 8 laboratories, library, 3 study halls, special rooms for the bookkeeping and domestic science departments, and will be equipped with a combination heating system of hot air and direct radiation.

\$500,000 Hotel Contemplated for El Dorado.

El Dorado, Ark.—The erection of a \$500,000 hotel here is under consideration by Ike Felsenthal and associates, who are promoting the organization of a stock company to finance the building. A site has been purchased and it is planned to put up a structure to contain from 150 to 200 rooms.



..Forest Park High School..Baltimore..Maryland..

IMPRESSIVE STRUCTURE TO BE ERECTED IN BALTIMORE AT COST OF \$1,500,000

NEWS AND VIEWS FROM OUR READERS

[Publication in this department of letters from our readers does not mean that we either approve or disapprove the views expressed. We believe in a full and frank discussion of the mighty questions of the hour, for only in this way can the truth be found. Therefore we often publish letters with which we do not agree.—Editor Manufacturers Record.]

Suggests a Five Year Period of Freedom of Railroads From Government Rule.

WILLIAM T. WELLS, Melbourne, Florida.

In a recent issue you ask a very serious question, i. e. "Is the Nation Drifting Into Dangerous Class Division? etc.

My answer to this is that it seems to be, but it may be saved by the inherent good common sense of the real Americans.

There seems to be no answer to such facts as Mr. Gaitskill states as to farmers and farm labor and they are indeed actual facts.

I find that there is the unwillingness to do an honest day's work in all parts of the United States by a great many of those who should be honest workers.

As the farmer has to provide food and clothing for these shirkers, is it any wonder that thinking men like Mr. Gaitskill want to know where it will eventuate?

At one time I raised fruits here but of late years it is simply foolish to try to do so at a profit.

As you know, I have had in the past some intimate knowledge of the financial and physical operation of railways and it looks to me to-day as if the country was in need of an E. H. Harriman to direct the transportation interests.

I believe that the first and most profitable move by the Congress for the benefit of the real farmer would be to repeal every bit of war legislation relating to the railways and also to repeal the Sherman act.

Allow the railways to manage their own business for a term of five years and free them from the dictation of ignorant committees and from the trades unions and if they did not then demonstrate their ability to serve the farmer and the manufacturer let them be closed, or go into the hands of the advocates of the Plumb plan.

I am very much in doubt that even Mr. Harriman could (if alive) so operate the roads under present handicaps as to make them pay.

My belief is that if we could get rid of many more of the holdovers in Congress and repeal all laws that now cramp the roads we would soon see a wonderful change.

A Southern Business Man's View of What Deflation Did.

E. D. ANDREWS, Manager of Durst-Andrews Company, Inc. Greenwood, S. C.

I have read with a great deal of interest your article in the MANUFACTURERS RECORD of Dec. 28, "We Stand at the Threshold of a New Era." I agree with you thoroughly except in one particular, and that is I do not think that Secretary Houston alone should be blamed with the activities of the War Finance Corporation ceasing. I believe that it was through President Wilson's influence that Secretary Houston pursued the course he did.

You will recall at the first session of the Congress that convened after the War Finance Corporation ceased functioning, Congress passed a bill authorizing this to function, and President Wilson vetoed this bill. What were the results? The bill was sent back to Congress unsigned, and by a large majority it was passed over his veto. It was one among the first bills passed over President Wilson's veto.

You will also recall that President Wilson promised the

union laborers he would use all means at his command to reduce the high cost of living and the only way that this could be accomplished was from the source of supply, and by the activities of the War Finance Corporation ceasing. This crippled all financial interests in the South and West where the "hog and hominy" is raised. I consider that the South and West have been benefitted more from relief received through the War Finance Corporation than from any other source. I am of the opinion had it not been for the activities of this Corporation, these sections would not be in as good shape financially as they are at present.

I am a great admirer of your editor, and consider that the principles the MANUFACTURERS RECORD has been advocating for the last several years have had a wonderful influence in bringing about financial relief to the South and West sections of the country, which were more depressed than all others on account of the lack of financial aid.

Deflation was made so drastic that before it ran its course all sections of this country were affected. I know of an eastern corporation that invested more than \$12,000,000 in Liberty Bonds, and in 1920 it became financially embarrassed, and had to throw these bonds on the market. According to their own statement, they sustained a loss of more than a million dollars on the sale of these bonds. This corporation, no doubt, made this investment from a patriotic standpoint, and were penalized severely for their patriotism.

The billions of dollars lost by the sugar interests of this country in the summer and fall of 1920 and spring of 1921 could have been very easily avoided had some of the officials, that had power to act, taken time to consider opportunities that were presented, and when this matter had attention, alas, too late, the opportunity had vanished, and prices were permitted to soar beyond all reason. Hence almost every country on the face of the earth shipped sugar to the United States simply on account of the price it was selling at, and the consequences were that the markets went all to pieces.

Another Boll Weevil Remedy Proposed.

H. W. GONIA, Huntington, W. Va.

I have been reading the MANUFACTURERS RECORD for several years, and have been very much interested in your publications in connection with boll weevil. Last year I made a trip to the Southwest for the express purpose of studying this pest. I stayed there for a little over a year working on the problem, and came back to West Virginia and completed my work. I now have the question up with the Department of Agriculture, Washington.

I have the formula, absolutely harmless to men or stock, and the formula is applicable for spraying any and all fruit trees and killing insects equally as well as the boll weevil.

I am making preparations to go to Fort Smith, Ark. where I have other interests in the way of oil leases which we will develop in the near future, and at the same time will enter into the manufacturing business—putting on the market the articles I have patented and which are on record at Washington.

Would like to get in touch with the entire South, interested in wiping out the boll weevil, and I know of no better or quicker way than through your columns.

Am ready to submit my formula to the proper authorities in Washington as soon as I can hear from them.

THE IRON AND STEEL SITUATION

Demand for Steel is Good With Promise of Heavier Production—Prices Tend to Advance.

Pittsburgh, Pa., January 20—[Special.]—Throughout the finished steel markets demand continues good and the buying is as heavy as at any time in this new movement, which began early in December. Apart from the new buying there is fairly heavy pressure for deliveries in nearly all products, and quite heavy pressure in some, particularly small sizes of merchant pipe, wire nails and automobile steel generally.

The recent improvement in steel demand was phenomenal, in that it began in December, ordinarily a dull month in steel and it is remarkable also that there should be heavy demand so soon after the turn of the year.

The steel market, thus far at least, reflects no lessening in demand or loss of strength, as a result of the alteration in prospects as to there being a coal strike. Part of the strength of the market in December was commonly attributed to the expectation of steel consumers that there would be a coal strike April 1, interfering with steel production. Now it has become moderately certain that there will be no strike. The operators are agreed to a continuance of the present scale for another year and the miners are expected eventually to agree, although for a time they may hold out for a two-year agreement and possibly a six-hour day or a five-day week. The operators have two reasons, each sufficient in itself, for continuing the present extremely high scale for another year, the first being the plainly expressed desire of the Government, the second being the existing industrial and transportation conditions, which would make deflation in wages very difficult, while a year hence these conditions are fully expected to be much more favorable.

Steel production promises to be heavier this month than in the past three months, when a rate of ingot production of about 40,000,000 tons a year was quite uniformly maintained. Mills are running somewhat more smoothly and have a slightly better labor supply. Few if any additional producing units have been put on or are likely to be, with one important exception, the Bessemer steel plant at Bellaire, O., of the Carnegie Steel Company. The two Bellaire blast furnaces have just been blown in and the two Bessemer converters will go on next week. The plant represents about one per cent of the country's steel production.

At the majority of steel producing and steel finishing plants the principal limiting factor in operations is labor supply, which is slightly better than three months ago but has not improved as much as would be expected from the season of the year, and when outdoor work becomes convenient again the mills are likely to be shorter of labor than ever. This

does not mean that there is the least likelihood of industrial operations, involving the consumption of steel, being curtailed by shortage of steel, for such operations will feel labor shortage as the steel mills do.

Steel prices show still more of an advancing tendency than a week ago, as there is a new item in the situation, an advance of \$2 a ton in shapes and plates by the Carnegie Steel Company, while hitherto the Steel Corporation was making no price advances and was not expected to make any. The advance is due in part at least to a desire to restore the old differential of plates and shapes above bars, the Carnegie prices now being 2.00c on bars and 2.10 on plates and shapes. Independents, in general, have gone up to 2.10c on all three products.

Independent wire mills are now obtaining their recently advanced prices without difficulty, the advance being \$2 a ton on wire products generally, making the independent nail prices \$2.80 against \$2.70 by the leading interest, which has covered its regular customers far ahead as well as it could. Independents are now asking \$3 a ton extra for annealing wire, making their price on it 2.70c.

Connellsville coke has declined a trifle in the week but is still \$2 a ton above its level early in December, before eastern buying for domestic consumption suddenly lifted the market. Prompt coke is \$8.00 to \$8.25 for furnace and \$9.00 to \$9.25 for foundry.

Pig iron is quiet all along the line, but with furnaces apparently comfortably sold up for the time being. Prices are steady on Bessemer at \$27.50, valley, and on foundry at \$27 to \$28, valley, depending on tonnage. Basic shows no definite market. Recent sales were chiefly at under \$25, with two or three at slightly above, while the position to-day is that producers state they would not sell at under \$26 while consumers are not inquiring at all, apparently being covered for the quarter.

Increase in Output and Value of Iron Ore in 1922.

The iron ore mined in the United States in 1922, exclusive of ore that contained more than 5.5 per cent of manganese, is estimated at 46,963,000 gross tons, an increase of 60 per cent as compared with that mined in 1921. The ore shipped from the mines in 1922 is estimated at 50,046,000 gross tons, valued at \$158,222,000, an increase of 88 per cent in quantity and of 76 per cent in value as compared with the figures for 1921. The average value of the ore per gross ton at the mines in 1922 is estimated at \$3.16; in 1921 it was \$3.37. The stocks of iron ore at the mines mainly in Michigan and Minnesota.

ESTIMATE OF IRON ORE MINED AND SHIPPED IN THE UNITED STATES IN 1922, AND ACTUAL OUTPUT IN 1921

District	Ore mined (gross tons)		Ore shipped			
	1921	1922	1921	Value	1922	Value
Lake Superior						
Michigan	7,075,204	10,402,000	5,011,804	18,481,225	12,361,000	43,745,000
Minnesota	17,811,325	28,599,000	17,648,603	62,780,754	29,952,000	98,980,000
Wisconsin	257,014	601,000	117,755	300,954	782,000	2,425,000
	25,143,543	39,602,000	22,778,162	81,562,933	43,095,000	145,150,000
Southeastern States						
Alabama	2,876,141	5,184,000	2,835,761	5,058,161	5,170,000	9,325,000
Georgia	5,556					
North Carolina	2,583		4,205	14,937		
Tennessee	25,709	200,000	25,219	68,726	202,000	576,000
Virginia	74,021		54,353	196,935		
	2,984,010	5,384,000	2,919,538	5,338,759	5,372,000	9,901,000
Northeastern States						
New Jersey	58,589	93,000	115,132	551,688	76,000	351,000
New York	469,988	544,000	174,368	946,366	159,000	764,000
Pennsylvania	146,649	776,000	187,062	288,955	780,000	941,000
	675,226	1,413,000	476,562	1,787,009	1,015,000	2,056,000
Other States	479,911	564,000	478,266	1,056,607	564,000	1,115,000
Grand Total	29,282,690	46,963,000	26,652,528	89,745,308	50,046,000	158,222,000

apparently decreased from 13,836,267 gross tons in 1921 to 10,699,000 tons in 1922, or 23 per cent.

These estimates, which are based on preliminary figures furnished by producers of 98 per cent of the normal output of iron ore, are by the United States Geological Survey. They show the totals for the principal iron-ore producing states, and, by grouping together certain states, the totals for the Lake Superior district and for groups of southeastern and northeastern states.

About 86 per cent of the iron ore shipped in 1922 came from the Lake Superior district, in which 39,602,000 gross tons was mined and 43,095,000 tons was shipped, increases of about 58 and 89 per cent, respectively, as compared with the quantities mined and shipped in 1921. The average value of the ore at the mines in the Lake Superior district in 1922 per gross ton was \$3.75; in 1921 it was \$3.58.

The southeastern states, which constitute the second largest iron-ore producing area, including the Birmingham and Chattanooga districts, mined 5,384,000 gross tons of iron ore in 1922, an increase of 80 per cent as compared with 1921. The shipments of ore from these states to blast furnaces in 1922 amounted to 5,372,000 gross tons, valued at \$9,901,000, an increase in quantity of 84 per cent and in value of 85 per cent as compared with the quantity and value of shipments in the previous year. The average value of the ore in these states in 1922 per gross ton was \$1.84; in 1921 it was \$1.83.

The northeastern states, which include New Jersey, New York, and Pennsylvania, in 1922 mined 1,413,000 gross tons of iron ore and shipped 1,015,000 gross tons, an increase of 109 per cent in the quantity mined and of 113 per cent in the quantity shipped in 1921. The average value of the ore in these states in 1922 per gross ton was \$2.03; in 1921 it was \$3.75.

The imports of iron ore from January 1 to September 21, 1922, amounted to 684,387 gross tons, valued at \$2,894,496, or \$4.23 a ton. The imports for the year 1921 were 315,768 gross tons, valued at \$1,075,909, or \$3.41 a ton. The exports of iron ore for the eleven months ending November 30, 1922, amounted to 602,095 tons, valued at \$2,770,160, or \$4.60 a ton, as compared with exports for the entire year 1921 of 440,106 tons, valued at \$2,077,620, or \$4.72 a ton.

Structural Sales Begin Upward Swing.

Continuation of the building boom this spring is forecast by the upward swing in sales of fabricated structural steel in December as reported by the Department of Commerce. The increase of about 20 per cent over November marked the turning point from a series of seasonal declines in fabricated steel orders and occurred a month earlier than last winter, when December was the month of minimum orders. December sales amounted to 58.3 per cent of shop capacity, as against 48.4 per cent in November. Estimated total sales of fabricated structural steel in 1922 amounted to 1,929,400 tons or 64.3 per cent of shop capacity, as against 997,200 tons in 1921, or 35.1 per cent of shop capacity.

The following table shows yearly figures of structural steel sales, based on new estimated capacities as the result of the special survey of the industry recently conducted by the Bureau of the Census, and the percentage of sales to shop capacity as reported by the Bridge Builders and Structural Society to April, 1922, and by the reports to the Bureau of the Census since then:

	Estimated Monthly Tonnage Capacity	Per Cent of Sales to Capacity	Estimated Tonnage Sales
1913	190,000	50.3	1,146,300
1914	191,000	50.4	1,155,200
1915	194,000	70.0	1,629,600
1916	200,000	69.4	1,665,600
1917	207,000	60.2	1,495,400
1918	218,000	55.6	1,454,500
1919	224,000	55.4	1,435,400
1920	222,000	53.8	1,498,500
1921	237,000	35.1	997,200
1922	250,000	64.3	1,929,400

RAILROADS

OKEECHOBEE TO MIAMI, FLORIDA.

Railroad Extension Will Traverse Fine Farming Region Now Being Drained.

The Florida East Coast Railway Company's long contemplated extension from Okeechobee to Miami, Florida, about 122 miles, has been authorized by the Interstate Commerce Commission, and it is expected that its construction will be completed about the end of the year 1927. The estimated cost of construction is less than \$5,000,000—or, according to a statement made at Washington—about \$4,839,500.

Okeechobee is at the northern end of Lake Okeechobee which is northwest of Miami. Several years ago the company completed a new line from New Smyrna to Okeechobee and it has now under consideration a proposition that it build an extension from Okeechobee to Pahokee, which if constructed would apparently become part of the line to Miami, Pahokee being about 25 miles southeast from Okeechobee and also on the lake. An inspection of the region was recently made by officials of the railway.

The line from Okeechobee to Miami would afford transportation facilities to an extensive territory which is now being drained and which is expected to eventually produce large crops of fruits and vegetables. A branch of eleven miles to Larkin, Florida, is included in the general plans. The cultivation of sugar cane is also proposed for the region to be served by the new roads, for it is stated that the lands when drained are suitable for a fine growth of cane containing a very high percentage of saccharine matter. Some cultivation of sugar cane is already done in or near this section.

New Equipment.

Illinois Central Railroad has invited proposals for building 50 locomotives, 2500 coal cars, 2000 box cars, 45 passenger cars and 125 caboose cars. Estimated cost of this equipment is about \$15,000,000.

Rock Island Lines have ordered 1250 cars to cost about \$2,736,400 as follows: 500 automobile cars from the Bettendorf Car Co., 250 refrigerator cars from the General American Tank Car Corporation and 500 flat cars from the American Car & Foundry Co.

Mobile & Ohio Railroad has ordered 9 locomotives, 5 steel passenger cars and 900 freight cars delivery to be completed next summer.

Equipment inquiries recently reported include 15 locomotives for the St. Louis Southwestern Railway, 40 locomotives for the Rock Island Lines, 4 dining cars for the Baltimore & Ohio Railroad, and 6 passenger train cars for the Central of Georgia Railway.

Atlanta & West Point Route has ordered 150 hopper cars from the American Car & Foundry Co.

Two Roads at Receivership Sale.

Only \$75,000 was bid for the Carolina & Yadkin River Railroad when it was offered for sale on January 16 at High Point, N. C., and it was refused because the price fixed by the court in the receivership proceedings was \$200,000. The bid was made by O. Arthur Kirkman, of High Point, for several local business men. The line runs from High Point to High Rock, 35 miles. L. H. Hole is the receiver.

A report from Fort Smith, Ark., says that the Fort Smith & Western Railroad was sold there on January 16 to its bondholders for \$50,000 plus \$800,000 of receivership indebtedness A. C. Dustin of Cleveland, Ohio, representing them. The line is 228 miles long from Fort Smith to Oklahoma City.

\$25,000,000 FOR A CUT-OFF.**Illinois Central Railroad About to Begin Work on 170 Mile Line in Two States.**

President C. H. Markham, of the Illinois Central Railroad Company, with reference to the cutoff line which it proposes to build from Edgewood, Illinois to Fulton, Kentucky, says in a letter to the MANUFACTURERS RECORD:

"The capacity of our present line between Fulton and Edgewood has about reached its capacity and, in order to provide for the growth of traffic and adequate transportation service, it is necessary that the capacity be increased. Economies of capital investment and operation make it desirable to build a new line some distance to the eastward, instead of revising grades, building a third track and enlarging terminals, etc., on the existing line.

"The new line is in the nature of a cutoff connecting with the present line at Fulton and at Edgewood, and it reduces the distance between these two points 22 miles. Crossing over the Ohio River will be afforded by the existing bridge at Metropolis, Illinois, of which we are a part owner."

As the distance over the present route via Cairo from Edgewood to Fulton is 192 miles the cutoff will be 170 miles long. Fulton is 405 miles from Chicago.

C. M. Kittle, senior vice-president of the railroad company, is quoted in a report from Chicago as saying: "It will cost us \$7,000,000 less to build the new line than to lay the necessary extra tracks along the present one. The new route, besides being 22 miles shorter, will have a three-tenths grade instead of the present grade of one and two-tenths per cent. The reduced grade will cut our haulage cost 40 per cent."

It is estimated, according to a report from Paducah, Kentucky, that the new construction will cost about \$25,000,000. The cutoff will pass through Futrell, Kentucky, about three miles west of that city. Surveys have been made and work is expected to begin soon. About 50 miles of the new line will be in Kentucky.

Sidelights on Railroad Traffic.

Loadings of revenue freight during the week ended January 6 amounted to 770,303 cars according to reports made to the car service division of the American Railway Association. This was 59,103 cars more than were loaded during the preceding week and 170,000 cars more than were loaded in the corresponding week a year ago and 72,000 cars more than in the same week two years ago.

Freight traffic during November, 1922 was the heaviest for that month in the history of the railroads according to reports to the Bureau of Railway Economics. Measured in net ton miles—that is the number of tons of freight multiplied by the distance carried—the railroads transported in that month 38,046,185,000 net ton miles, an increase of slightly more than 30 per cent as compared with November, 1921 and of 2 per cent over that month in 1920.

Freight cars in need of repairs on January 1 totaled 216,011 or 2174 more than on December 15.

Complete reports show that the number of cars loaded with all commodities, other than coal, during 1922 was the greatest in history, exceeding by 16 per cent the total for 1921 and surpassing by 3½ per cent the total for 1920. The number of cars so loaded during 1922 was more than 36,000,000.

To Electrify a Mexican Line.

Saltillo, Mexico.—Alfred Crewdson, of Manchester, England, and British associates who own the Coahuila & Zatecas narrow gauge railroad are preparing to electrify it. The line runs between Saltillo and the mining town of Concepcion del Oro, 78 miles, with a branch from San Pedro to Ayalos, 17 miles. It was built primarily to serve the Mazapil Copper Company, Ltd., owned by the same interests.

Stephen Phindler, electrical engineer for the copper company is making the surveys and estimates for the electrical installation, which involves the building of a dam and water storage reservoir and the erection of a hydro-electric plant. R. H. Jeffery is vice president and general manager of the line.

THROUGH THE CUMBERLAND MOUNTAINS. Louisville & Nashville Railroad and Southern Railway to Be Connected by 35 Mile Line.

Construction of a railroad 35 miles long which would connect the Louisville & Nashville Railroad and the Southern Railway is planned by the Southeastern Railroad Company, incorporated last week at Frankfort, Ky., with \$500,000 authorized capital and the following officers: L. O. Pettit, Big Stone Gap, Va., president; W. A. Hahn, Norfolk, Va., vice president; J. F. Bullitt, Jr., Big Stone Gap, secretary; C. R. Garver, Norfolk, treasurer. Headquarters will be at Big Stone Gap.

The route proposed is from an extension of the Louisville & Nashville Railroad in the valley of Clover Fork in Harlan County, Kentucky, through the Cumberland Mountains to a connection with the Southern Railway near Keesee, Virginia, which is about 9 miles from Big Stone Gap. There is not now any railroad line through these mountains nearer than at Cumberland Gap, near Middlesboro, Ky., on the south and at the Breaks of the Big Sandy on the north, so that the projected road would be very valuable as a short route between the two large railroad systems which it would connect. In addition to these the Clinchfield Railway is also near, besides the Interstate Railroad and the Norfolk and Western Railway.

Moreover, the country through which the new road would run is rich in mineral resources as well as in timber and many valuable tracts of land would be developed as a result of its construction. The connection with the Southern Railway would therefore afford an outlet via Bristol to the South for new coal and lumber resources. Besides, it would give a connection with the Louisville & Nashville's line to the east of the mountains where it runs northeast from Middlesboro.

In view of the recent construction of an 18 mile extension by the Interstate Railroad from Norton, Va., to the mouth of Guest River, connecting with the Clinchfield Railway, this proposed railroad link is all the more interesting as further evidence that the coal operators in that region are looking forward to increased activity.

Interior Salt Domes May Yield Oil.

Among the salt domes that have thus far failed to reward the oil man for his drilling are the so-called "interior domes," those that lie far inland from the coast, says the United States Geological Survey. Six or more of these domes in Texas and seven or more in Louisiana, though they have not been extensively drilled, have yielded to such prospecting as has been done on them no notable showings of oil or gas. From one, however, the Keechi dome, in Anderson County, Tex., a little heavy oil has been obtained.

Three of these interior domes in Texas—the Brooks, Steen and Grand Saline domes—are considered in Bulletin 736-G, which has just been issued by the Survey, which states that the bulletin should be helpful to anyone who is interested in the production of oil from salt domes.

In spite of the discouraging results of such drilling as has been done on interior salt domes the presumption against their productivity can not be considered proved. In some of them the conditions that occur in the productive coastal salt domes are seemingly duplicated, and it will be strange indeed if one or more of them do not yield oil, states the report.

LUMBER AND BUILDING MATERIALS

LUMBER INDUSTRY MAKES HIGH RECORD FOR NEW BUSINESS.

Revised Figures Also Show 1922 Lumber Production Greatest Since 1917.

Washington, January 18—Defying all lumber trade traditions of mid-winter dullness, new business reported to the National Lumber Manufacturers Association for last week was the second only to a peak week last May in the recent chronicles of the industry. Shipments were near the record, too, being exceeded within a year by only those of a few weeks last summer. On the other hand, owing to weather conditions and repairing operations, production was about the same as a year ago. The result of these varying factors is that for all the 362 mills reporting this week shipments were 133 per cent and orders 158 per cent of production. For the Southern Pine Mills the percentages were 127 and 166 respectively and for West Coast mills 132 and 152.

As compared with their normal production for the week 336 of the reporting mills gave actual production as 78 per cent, shipments 105 per cent and orders 126 per cent.

Taking the country by regions, the Northern Pine Manufacturers Association reports from Minneapolis that of the nine mills reporting only four are sawing.

The Western Pine Manufacturers Association wires from Portland, Ore., that of 34 identical mills included in the reports sixteen, the same as last week, are operating. Western Pine orders increased 14 per cent, shipments 30 per cent and production 21 per cent compared with the previous week. The predominating demand is for mixed stocks for retail yards.

From San Francisco, the California Redwood Association reports that the order file of its member mills is the largest for any week in five years, with production well in excess of normal and shipments satisfactory.

The Southern Pine Association reports from New Orleans that the week's new business for its member mills reporting totals the exceptional figure of 111,986,532 feet.

From Seattle, the West Coast Lumbermen's Association reports that its mills "took on the heaviest volume of new business in the history of the fir producing industry; the total being 116,155,000 feet, of which 38 per cent was taken for future water delivery. Domestic cargo orders amounted to 31,787,000 feet and export orders to 12,187,000 feet. Shipments also broke all previous weekly records with a total of 100,300,000 feet, of which 41 per cent moved by water. Production was 16 per cent below normal, due to continued heavy rains and unprecedented high water, which has prevented getting logs from the camp booming grounds to the mills.

In the Coast producing region it has been raining for thirty days. On the Columbia River last week only three mills were able to operate on account of high water. The unfilled orders at West Coast mills slightly exceed 500,000,000 feet."

From Cadillac, Mich., the Michigan Hardwood Manufacturers Association reports that December shipments exceeded production by 40 per cent, and that the outlook for the input of logs exceeds the cut of last year by 16 per cent. On account of extremely cold weather many locomotives have been put out of commission, being in such a condition, "that they ought to go to the scrap heap," and the supply of cars is not good.

In view of the vigor the lumber industry shows in the first weeks of 1923, it is significant that according to a revision of the estimated output of lumber of all sorts in the United States in 1922, made by the Department of Economics of the National Lumber Manufacturers Association, production in 1922 was probably about 4,000,000,000 feet larger than stated in a "release" issued on December 30, based upon incomplete returns. The 1922 output of the mills of seven associations reporting weekly to the National Association was 11,200,000,000 feet and in view of the preliminary Census report on lumber output in 1921 published yesterday and other data, it is believed that this amount is 31 per cent of the total, which would in that case be approximately 36,000,000,000 feet, roundly. It is probable that when the final estimates are compiled a year or so hence by the Census Bureau and the Forest Service they may go as high as 37,000,000,000 but not lower than 35,000,000,000 feet. Except in the industrial census years all figures on total lumber output in the United States are estimates based on reports from a part of the mills. The reported cut of 15,731 mills, announced by the Census bureau for 1921, is practically 27,000,000,000 feet, and the actual cut was probably at least 3,000,000,000 feet greater. If the 1922 cut is put at 36,000,000,000 it holds the record since 1917, which was 36,000,000,000 as estimated by the Forest Service.

The following figures afford a comparison of the lumber movement for the past week, the corresponding week in 1922 and the preceding week:

	Past Week	Corresponding Week 1922	Preceding Week (Revised)
Mills	362	393	388
Production	175,794,033	174,818,124	159,446,452
Shipments	233,102,718	158,312,711	198,033,297
Orders	277,618,943	171,160,316	180,019,237

The following table compares the three factors of the lumber movement so far this year and for the like period of 1922:

	Production	Shipments	Orders
1923	335,240,485	431,136,015	457,638,180
1922	326,169,271	298,206,591	306,436,906
1923, Increase....	9,071,214	132,929,424	151,201,274

LUMBER MOVEMENT FOR TWO WEEKS, AND FOR THE WEEK ENDING JANUARY 13

	Production		Shipments		Orders	
	1923	1922	1923	1922	1923	1922
Southern Pine Association						
Total	130,522,628	137,520,712	165,750,984	115,642,116	176,576,652	135,303,624
Week (127 mills)	67,641,293	73,048,799	85,968,540	59,624,964	111,986,532	75,422,484
West Coast Lumbermen's Ass'n						
Total	140,925,293	141,617,732	177,732,546	123,527,546	189,524,188	111,807,915
Week (135 mills)	76,277,325	75,430,563	100,319,912	64,353,149	116,155,139	63,372,996
Western Pine Mfrs Ass'n						
Total	17,647,000	16,094,000	37,384,000	30,007,000	33,725,000	29,175,000
Week (35 mills)	9,265,000	8,136,000	21,012,000	16,702,000	19,325,000	15,375,000
Calif. White & Sugar Pine Mfrs.						
Total	4,309,000	1,067,000	4,778,000	5,054,000	6,603,000	3,209,000
Week	no report	no cut	no report	2,643,000	no report	1,456,000
Calif. Redwood Ass'n						
Total	12,223,000	13,324,000	14,976,000	10,589,000	24,758,000	11,232,000
Week (15 mills)	7,459,000	6,886,000	8,791,000	5,566,000	16,056,000	6,329,000
North Carolina Pine Ass'n						
Total	10,274,064	12,980,827	11,975,685	10,275,929	9,595,340	12,214,367
Week (24 mills)	6,171,015	8,551,762	6,869,966	7,248,598	4,807,272	7,230,936
Northern Hemlock & Hardwood						
Total	3,622,000	3,565,000	3,625,000	3,111,000	4,155,000	3,495,000
Week (17 mills)	1,702,000	2,765,000	2,194,000	2,175,000	2,642,000	1,974,000
Northern Pine Mfrs Ass'n						
Total	15,717,500	14,913,800	14,913,800	12,701,000	12,701,000	12,701,000
Week (9 mills)	7,278,400	7,947,300	7,947,300	6,647,000	6,647,000	6,647,000
General Total for 2 weeks..	335,240,485	326,169,271	431,136,015	298,206,591	457,638,180	306,436,906
General Total for week....	175,794,033	174,818,124	233,102,718	158,312,711	277,618,943	171,160,316

Aim to Eliminate Waste in Lumber Production.

Washington, D. C.—The National Lumber Manufacturers Association has offered a series of prizes to those who contrive the best method, the newest machine or device, which, in its practical application, will result in an appreciable saving of labor, time, material or expense in the lumber manufacturing industry.

The purpose of this contest is to create, within and without the industry, inventive interest which will result in practical conservation of forest products and reduction of costs in manufacture.

North Carolina Pine Shipments Increase.

Norfolk, Va.—For the week ended January 13, the North Carolina Pine Association reports shipments of 8,475,966 feet, an average per mill of 249,293 feet, as compared with orders for 5,747,272 feet, an average per mill of 169,037 feet, and production of 7,599,015 feet, a mill average of 223,500 feet.

	Total Feet	Average per Mill, Feet
Orders	5,747,272	169,037
Shipments	8,475,966	249,293
Production	7,599,015	223,500
Normal Production	11,490,000	337,941
	Feet	Per Cent.
Orders below shipments	2,728,694	32
Orders below actual production	1,851,743	24
Shipments above actual production	876,951	11
Orders below normal production	5,742,728	49
Shipments below normal production	3,014,034	26
Actual production below normal	3,890,985	34
Increase in orders compared with last week	959,204 feet	20

TEXTILE

\$2,000,000 Bleachery Under Consideration Near Greenville.

Greenville, S. C.—The establishment of a bleaching and finishing plant near Greenville to cost from \$1,000,000 to \$2,500,000 is under consideration by the Pacific Mills of Boston, which operates a number of mills in the South. It is said that a property near Groce has been tentatively agreed upon as the site and several hundred acres are available.

Investigation of the site has been made and plans for the plant are being worked out by Lockwood, Greene & Co. of Atlanta, but it is stated that the cost or capacity of the enterprise has not been determined, the estimates placing the amount to be expended at \$2,000,000 or more. Power for driving the machinery will be obtained for the most part, it is said, from the Southern Power Company's lines in this section and from other sources.

Replying to a request for information, in which no reference was made to the Pacific Mills, Lockwood, Greene & Co. wire the MANUFACTURERS RECORD as follows: "We are not in position to give out any additional information as to possible location of bleachery near Greenville." A direct request to the Pacific Mills as to its plans for establishing a bleachery near Greenville brings the following reply. "Have reached no conclusion regarding Southern development."

Nine Mill Buildings to Cost \$6,000,000.

Chattanooga, Tenn.—Contract has been awarded by the Dixie Spinning Mill Inc., Carter Lupton, President, to the Batson-Cook Co., West Point, Ga. on a cost-plus basis, for the construction of nine 2-story mill buildings which are estimated to cost \$6,000,000.

A total of 70 dwellings will also be erected. Robert & Co. of Atlanta are the architects and engineers.

LARGE WORSTED MILL REPORTED PLANNED FOR GREENVILLE.

Lockwood, Greene & Co. May Build Plant Costing \$4,000,000 to \$5,000,000.

Following closely upon recent reports that the Pacific Mills of Boston plans to build a bleachery and finishing plant near Greenville, the cost variously estimated at from \$1,000,000 to \$7,000,000, it is now stated that Lockwood, Greene & Co. of Atlanta will build a mammoth plant in the vicinity of Greenville, at a cost of \$4,000,000 to \$5,000,000, for the production of worsted goods.

It is said a site has been secured for the plant in easy distance of electrical power lines and electricity will be used for power. Adequate transportation facilities will also be available.

Asked to confirm reports that they would build the plant, Lockwood, Greene & Co. wire the MANUFACTURERS RECORD as follows: "We have no information we can give reference worsted mill project near Greenville."

\$500,000 Cotton Mill Planned for Wadesboro.

Wadesboro, N. C. Jan. 18.—[Special.]—A century old precedent was overthrown this week in the sudden determination of the progressive element of this community for industrial expansion, and through the Wadesboro Chamber of Commerce a half million dollars was subscribed by two hundred citizens in a four days campaign for a cotton mill project to be financed and managed exclusively by local interests. Heretofore the development of such projects has been left to neighboring towns.

With all the capital needed for this initial enterprise, subscribed and ready, engineers have been invited for a consultation on several sites, where ample railroad facilities and water supply along modern highways are available. The construction of a mill village containing between 100 and 125 bungalow type four to six-room houses for operatives are part of the project program; and according to the opinion now prevailing, the mill will take the cotton grown in this county, and spin, dye and weave it into the finished product, ready for the market.

Construction will begin as soon as engineers can complete plans, which will include beside the three mill buildings, several streets, sewerage, a huge reservoir for fire protection and water works, the erection of many homes and a complete lighting system. It is fully expected that all construction work on this project will be completed by the spring of 1924. This project is but the forerunner of other similar enterprises to be financed by local capital.

With this project goes a pretentious street paving program of several miles, petitions for which were presented to the city council some time ago. This will cost about \$400,000 and is expected to be completed before next winter. Bids for the bonds to be issued and bids for the paving of the streets and sidewalks will be asked for in the near future.

Extensive Mill Village Improvements.

Charlotte, N. C.—A big program of improvement work in its four mill villages, two at Macon and two at Porterdale, Ga., has been undertaken by the Bibb Manufacturing Co. of Macon. E. S. Draper, landscape architect and city planner of Charlotte, has been engaged to prepare plans and specifications and to supervise the construction contemplated.

The work will include 15 to 20 miles of concrete sidewalk, curb and gutter, storm drainage, street surfacing, grading, planting and beautifying, developing park and school grounds, etc. Plans and specifications will be ready for contractors by March 1 and it is expected that contract will be awarded by March 10.

Contract Awarded for \$750,000 Lumberton Mill.

Charlotte, N. C.—Contract has been let to the Charlotte office of Lockwood, Greene & Co. for the engineering and supervision of construction of the new mill building at Lumberton to be erected by the Lumberton Cotton Mills, H. P. Jennings, president.

It is stated that the plant will house 600 looms for the production of sateens and, with equipment, will cost about \$750,000. It is designed to take care of the company's yarn production, converting this product into the finished goods.

Promoting \$500,000 Company to Build Mill.

Gainesville, Tex., Jan. 19—[Special.]—Dr. C. L. Stokes of Gainesville and other citizens are promoting the construction of a cotton mill here. It is proposed to organize a company with \$500,000 capital stock to build and operate the plant.

Approves \$50,000,000 Road Program.

Columbia, S. C.—Approving the \$50,000,000 road program as recommended by the executive committee, the second session of the good roads convention, meeting in this city, made only minor changes in the report, which outlines a plan for the construction of a system of hard-surfaced roads throughout the State connecting the county seats and the centers of population.

The program would cover an eight-year period and would provide for the construction of 1502 miles of hard-surfaced roads and 647 miles of other types, together with the necessary bridges.

MECHANICAL

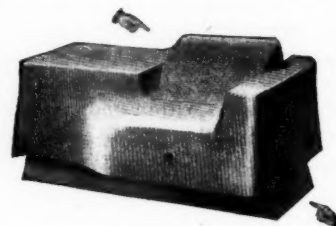
Hammer Die with Tilting Face.

A new combination hammer die for drawing tapers and which can be obtained for any make or size of trip, air, or steam hammer, is being placed on the market by Beaudry & Company, Inc., manufacturers of power hammers, 45 Bromfield Street, Boston, Mass. It is stated that by using this die one man in one heat can draw any taper that can be handled under a hammer.

As will be seen in the illustration herewith one end of the die is provided with a tilting face which is so supported that it moves freely on a fixed axis so that the operator,

by merely shifting the position or angle of the work, and striking a light blow, automatically adjusts this tilting face to any desired angular position with relation to the top

hammer die. This makes it possible to give any desired taper to the work and any shaped piece can be completely finished and smoothed up, point and all, without any hand finish.



TILTING OR ROCKING FACE
HAMMER DIE

It must also be noted that any scale falling between the tilting face and die holder is worked into

a pit through grooves and is forced out through a hole in each side of the die holder so that the tilting face works freely at all times. The fixed plain part of the die face can be used for general forging the same as any ordinary die. Moreover, the die holder is cast of gun iron, while the tilting face is forged from 60 carbon hard steel.

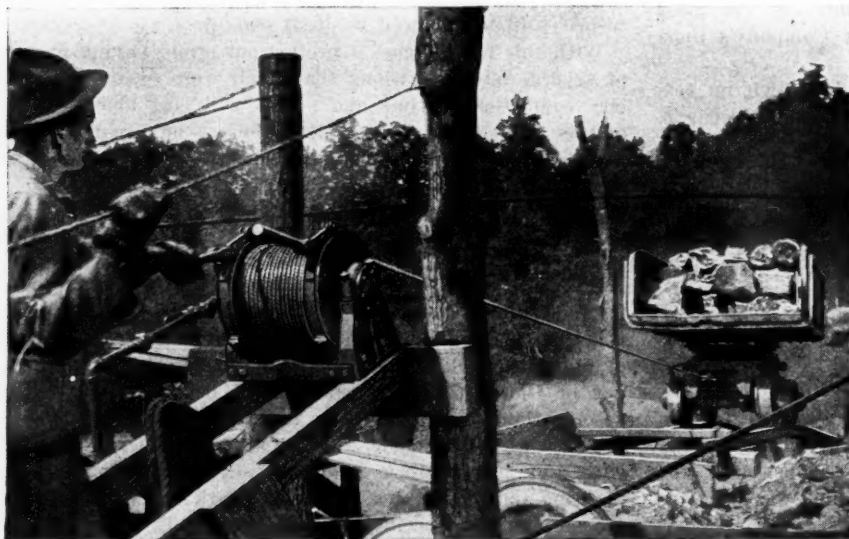
This die, it is further stated by the manufacturers, will be found invaluable on such work as flat, cape, diamond point, and track chisels, caulking tools, railroad spikes, cant dogs, wedges and shims, slice bars, crowbars, pickaxe ends, drift pins, marlin pins, bucket teeth, rocker arms, eccentric rods, equalizing levers, valve yokes, brake levers, keys, gibs, wrenches, ice picks, stone picks, stone cutters' and quarrymen's hammers, etc.

Small Air Hoist On Haulage Job.

Last year there was completed at Cooksville, Tennessee, a small hydro-electric plant to light the town. During its construction a dam was built across a small stream nearby and a quarry was opened up to furnish stone for concrete. It was necessary to haul a stone car up a narrow gauge track about 250 feet to the stone crusher and in order to handle this car quickly and at low expense a small portable compressed air hoist of the Sullivan turbinair pattern was installed. As will be observed in the accompanying picture the hoist was bolted on timbers inclined at a suitable angle and fastened to two vertical posts at a sufficient height. The car weighed 1200 pounds empty and held three yards of stone. The grade was thirty degrees and the hoist handled the heavy load rapidly and effectively, illustrating its value for this and other kinds of work.

This hoist weighs only 285 pounds but it develops $6\frac{1}{2}$ horsepower and has a rated maximum capacity of lifting one ton vertically at 110 feet per minute. The ordinary air pressure recommended is 75 pounds to the square inch. The drum holds 500 feet of $5/16$ inch wire rope. The engine is of novel design, consisting of a pair of turbinair rotors, or helical gears, ground together and running in a tight casing on ball bearings. Advantage is thus taken of the expansive properties of the air and the hoist, it is stated, is very economical in air consumption. The motor revolves with the drum, which in fact forms the motor casing and which is driven by gearing. The hoist is controlled by a clutch and a friction brake.

These hoists are manufactured by the Sullivan Machinery Company, Peoples Gas Building, Chicago.



TURBINAIR HOIST HAULING STONE CAR.

Construction Department

EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained. Further facts about any incomplete or incorrect item reported in these columns are always appreciated.

DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers, and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$20.00 a year.

Bridges, Culverts and Viaducts.

Ala., Centerville—For proposal details see Mchy. Wanted—Road and Bridge Construction.

Fla., Clearwater—Pinellas County Comms., Special Road & Bridge Dist. No. 1, plans building causeway across Boca Ceiga Bay, 4 bridges, and roads running north and south on Treasure Island and Long Key; will vote March 8 on \$259,000.

Fla., Jacksonville — Florida East Coast Ry., H. N. Rodenbaugh, Ch. Engr., St. Augustine Fla., plans constructing 2500 ft. double track railroad trestle across St. Johns River, to replace present span; \$1,800,000 to \$2,000,000; concrete pier foundation, steel superstructure, bascule lift, operating on hinge, horizontally.

Fla., St. Petersburg—Gandy Bridge Co., has begun construction of toll bridge and causeway over Old Tampa Bay connecting Tampa and St. Petersburg; total length 30,390 ft.; total causeway 16,900 ft.; causeway built as fill with 40-ft. top for roadway and bottom 400 ft. across; mean elevation above water 10 ft. to level of fill; reinforced concrete bridge; double jack-knife type draw, 75 ft. wide in clear, location and type approved by War Dept.; total cost \$2,000,000; W. G. Thompson, Engr. in charge of construction. (Previously noted.)

Ga., Atlanta—Fulton County, C. M. Holland, Pur. Agt., will receive bids until Jan. 20 to construct 2 bridges as follows: Over Peachtree Creek on Cheshire Bridge road, and over Entrenchment Creek on South Blvd.; reinforced concrete 1-Beam bridge or arch. (Lately noted.)

Ga., Brunswick — St. Simon's Highway Comsn., Glynn County Comms., let contracts to build 4 bridges including 2 draw spans, on road between Brunswick and St. Simon's Island to Savannah Foundation Co., Savannah, and to Atlantic, Gulf & Pacific Dredge Co., for causeways between bridges. (Lately noted.)

Ga., Columbus—Central of Georgia R. R. Co., L. A. Downs, V. P. and Genl. Mgr., plans building concrete viaduct at 13th St. from 5th to 10th, \$293,000, Central paying \$260,500 and Southern paying \$32,500; will also build reinforced concrete underpass at 11th St., with two 20-ft. roadways and 8-ft. sidewalk, \$165,000.

Ga., Perry — Cornell-Young Contracting Co., Macon, Ga., was awarded contract to build 76-ft. reinforced concrete bridge over Mossy Creek, near Perry, Houston County, F. A. Proj. No. 243, under Federal, State and County auspices.

La., New Orleans—For proposal details see Mchy. Wanted—Bridge Construction.

Md., Mount Washington Sta., Baltimore—Dept. of Public Improvements, Baltimore, approved plans to build bridge on South Ave., over tracks of Northern Central Ry. Co., and Jones' Falls; also to build cut-off

from north end of improvement at 1st Ave. to North and 2nd Aves.; also approved plans to extend Fish House road from Hanover St. to Manokin; Aug. E. Christliff, Ch. Engr.; Chas. F. Goob, Highways Engr.

Miss., Jackson—For proposal details see Mchy. Wanted—Bridge Construction; Road Maintenance.

Miss., Vicksburg—For proposal details see Mchy. Wanted—Culvert Construction.

Missouri—State Highway Dept., Jefferson City, Mo., let contracts for 10 steel and concrete bridges as follows: Bollinger County, on road from Marble Hill to Patton, F. A. Proj. No. 202 A, to C. P. O'Rielly & Co., St. Louis, Mo., at \$38,041.10; Buchanan County, on road from Faucette to New Market State Proj. Route No. 1, Sec. 34, to F. E. March & Co., Jefferson, Iowa, at \$57,811.60. (Lately noted.)

Missouri—State Highway Dept., Jefferson City, Mo., let contracts for 3 steel and concrete bridges in Cape Girardeau County, on road from Jackson to Perry County line, State Proj. Route No. 25, Sec. No. 19, to Carroll Bidwell and H. Cortell, Cape Girardeau, at \$14,535.59. (Lately noted.)

Missouri—State Highway Dept., Jefferson City, Mo., let contracts for 15 steel and concrete bridges as follows: Newton County, on road from Neosho to Granby, F. A. Proj. No. 155, to Concrete & Steel Construction Co., Joplin, Mo., at \$28,114.10; Phelps County, on road from Rolla southward, F. A. Proj. No. 110 A, to M. E. Gillioz, Monett, Mo., at \$13,374.24; Madison County, on road from Fredericktown westward, F. A. Proj. No. 203 A, to M. E. Gillioz, at \$44,433.75; Iron County, on road from Bruel, eastward and westward, F. A. Proj. No. 193 A, to J. P. Sparks, Kirkwood, Mo., at \$19,171; Platte County, on road from Parkville, southeastward, F. A. Proj. No. 48, to T. A. Woods Construction Co., Smithville, Mo., at \$26,238.80. (Lately noted.)

N. C., Penrose—For proposal details see Mchy. Wanted—Bridge Construction.

N. C., Whiteville—For proposal details see Mchy. Wanted—Culvert Construction.

N. C., Wilson—For proposal details see Mchy. Wanted—Bridge Construction.

N. C., Winton — State Highway Dept., Raleigh, plans expending \$500,000 to build steel and concrete bridge across Chowan River at Winton, to replace ferry.

S. C., Orangeburg — Orangeburg County Highway Comsn., J. W. Smoak, Chrmn. let contract to Kershaw Contracting Co., Birmingham, Ala., \$41,637.87, to build concrete bridge over Edisto River at foot of W. Russell St.; 21 ft. long, with 54-ft. approach on county side.

Tex., Richmond—Fort Bend County, C. D. Myers, County Judge, plans building 2 bridges; 160-ft. concrete pile trestle extension to bridge over San Barnard River on S. H. No. 3, between Fort Bend and Wharton

Counties, \$18,000; also 260-ft. and two 160-ft. steel spans with reinforced concrete pile trestle approaches, \$225,000; C. H. Kendall, County Engr., Sugarland, Tex.

Tex., Seguin — For proposal details see Mchy. Wanted—Bridge Construction.

Tex., Wallis—San Antonio & Aransas Pass Ry. Co., L. Andrews, Ch. Engr., let contract to Elder Construction Co., San Antonio, at \$80,000 to build concrete bridge piers across Brazos River. (Lately noted.)

Virginia—State Highway Comsn., Richmond, Va., will build 5 concrete and steel bridges. For proposal details see Mchy. Wanted—Bridge Construction.

Canning and Packing Plants.

Fla., Tampa—Kingan & Co., V. A. Davis, Local Mgr. will erect 2 story distributing center and cold storage plant at Whiting and Governor Sts.; reinforced concrete; fireproof; cost approx. \$90,000; F. J. Kennard, Tampa, Archt. (Previously noted.)

Ga., Thomasville—Georgia-Florida Packing & Orchard Co., capital \$500,000, incptd. by J. E. Sansbury of Dothan, Ala.; W. H. Baxley, of Waycross; will construct plant with daily capacity of 250,000 cans of sweet potatoes, 500,000 cans of tomatoes, or 1,000,000 cans of berries; plant to take care of over 10,000 acres of produce, including pineapple, pears, orange, etc. (See Land Developments Fla., Panama City.)

Ky., Covington—Liberty Cherry & Fruit Co. increased capital to \$150,000.

La., New Iberia—Frank Spice & Tea Co., Jacob Frank, will erect iron clad, L shaped building on Jefferson & Washington Sts. for packing plant; cost about \$30,000.

Md., Easton—Chester A. Lee will rebuild canning plant burned at loss of \$40,000.

Clayworking Plants.

Fla., Dade City—Dade City Brick Co., capital \$10,000, incptd. with F. M. Ackerman, S. H. Ackerman, D. D. Faulkner.

Fla., Eustis—A. J. Wolz & Sons will install 200,000 brick kiln.

Mo., St. Louis—Missouri Indiana Fire Clay Co., capital \$10,000, incptd. by Hazel G. Thoms, G. E. Thomas, F. H. Schweteye.

Coal Mines and Coke Ovens.

Fla., Sanford—Carolina Coal Co. let contract to Summers & McAuley to grade 3 mi. railroad to connect mines at Coal Glen with the Norfolk Southern and the Southern roads between Cummock and Gulf; reported.

Ky., Lou'sville — Scanlon-Thompson Coal Co., capital \$20,000, incptd. by W. C. Thompson, J. C. Hanna.

Ky., Pineville — Smothers-Gooch Coal Co., capital \$10,000, incptd. by E. A. and E. C. Smothers, C. L. Gooch.

Tex., Garrison—O. K. Lignite Co., C. W. Osborn, Prest.-Mgr., Box 1404, Dallas, Tex.,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

will develop 600 acres coal land, estimated daily output 5 cars; contemplate installing mine cars, hoisting engine and small boilers; J. P. Brannon, Const. Engr., Box 66, Garrison. (See Mch. Wanted—Mining (Coal) Equipment.)

Va., Steinman, P. O. Tandy—Steinman Coal Corp., capital \$300,000, chartered with James H. Steinman, Prest., Lancaster, Pa.; Whitney C. Faulkner, Secy., Richmond Va.

W. Va., Beckley — Morganette Coal Co., capital \$400,000, inceptd. by J. R. Ragland, C. H. Meador and J. Q. Hutchinson.

W. Va., Fairmont—Hutton-Beale Coal Co., capital \$50,000, inceptd. by Ernest Hutton, W. N. Beale and H. H. Currey.

W. Va., Grafton—Number One Coal Co., inceptd. by J. L. Hechmer and E. B. Jenkins, both Grafton; Moses Woods, Buckhannon, W. Va.

W. Va., McGraws—Morrison Coal Co., John Laing, Prest., Charleston, W. Va. has 4600 acres coal land under development; estimated output 1500 tons daily; now purchasing mch. including mine motors, machines, cars, etc. (Lately noted.)

W. Va., Netelton—McKone Coal Co., capital \$200,000, inceptd. by J. J. McCone, F. W. and L. H. Borgman.

Concrete and Cement Plants.

Ala., Sheffield—Cement.—Sam W. Kendall, Meridian, Miss. reported to erect 3 unit plant, for mfr. of Portland cement; each unit having daily capacity of 2000 bbls.; approx. cost \$1,000,000.

Tenn., Richard City—Dixie Portland Cement Co., Chattanooga, Tenn., reported as expending more than \$200,000 on plant improvements during this year.

Va., Roanoke—Shingles, etc.—Cement Products Mfg. Corp. (lately noted inceptd., capital \$30,000) organized with E. A. Buchanan, Secy.-Mgr., Box 1172, will erect 60 x 30 ft. building, cement and brick construction with tile roof of own mfr.; greater portion of mch. purchased; mfr. cementile shingles, and various cement products.

W. Va., Huntington — Kabell Concrete Products Co., capital \$25,000, inceptd. by S. E. Cook, Huntington; V. O. Weathers, Ashland, Ky.; W. O. Brewer, Chillicothe, Ohio.

Cotton Compresses and Gins.

Mo., Hayti—I. Kohn is Prest., of company organized with \$100,000 capital to erect cotton compress and warehouse.

Mo., Parma—R. W. Baskin, Geo. M. Meier, J. L. Allen and others interested in establishing cotton gin.

Tex., Haskell—Farmers' Gin Co., capital \$50,000, inceptd. by R. H. Darnell, J. A. Gilstrap, R. P. Simmons.

Drainage Systems.

Fla., Bushnell — Sumter County Commrs. will begin drainage work in Jumper Creek Drainage Dist., reclaiming about 25,000 acres land; has \$165,000 available; contemplates work of still larger area in both Lake and Sumter Counties.

Fla., Fort Pierce—North St. Lucie River Drainage Dist. Commrs. has canal about two-thirds completed, will serve about 75,000 acres land and relieve Everglade dist.; estimated a total excavation of 6,000,000 cu. yds. of material will have been removed when canal is finished.

Fla., Tallahassee — Everglades Drainage Dist. Board, F. C. Elliott, Chief Engr. contemplates five new drainage projects, include construction of an intercepting canal, extending from Miami canal at a point 14 mi. south of Lake Okechobee east to Hillsboro canal; improvement of Hillsboro and north New river canals and construction of levees on West Palm Beach, Miami and south New river canals; projects approved by State Board.

Fla., Tampa—Lake Mango Drainage Dist. Commrs. W. O. Hobbs, Chmn., contemplates constructing drainage channels from Lake Mango across the Plant City road, Mango-Limona, Limona-Brandon and other roads; also proposes lowering Lake Mango by approx. 4 ft. thus draining about 2000 acres land; estimated cost \$100,000. (Lately noted.)

Electric Light and Power Plants

Ala., Childersburg—Alabama Power Co. of Birmingham, Ala. has franchise for supplying electric light and power.

Ark., Little Rock—Arkansas Power Corporation, Virgil C. Pettie, Prest., authorized \$500,000 increase of capital stock and \$500,000 bond issue; will extend transmission lines to about 21 cities and towns of North East Arkansas, including Little Rock; power to be supplied from hydro-electric dam on Little Red River, nr. Searcy.

Fla., Boca Ratone—For full details see Water Works.

Fla., Fort Lauderdale—For full details see Land Development.

Fla., West Palm Beach—For full details see Land Developments.

Ga., Cleveland—O. C. Bell is having surveys made by V. C. Downing, Engr., of Robert & Co., Atlanta, Ga. for power plant.

Ky., Maysville—Maysville Public Service Co. increased capital to \$300,000.

Mo., Greenfield—South Missouri Power Co., capital \$100,000, inceptd. by C. E. Ward, Buford Adams, E. Nelson.

Mo., Kirksville—City will vote on Feb. 24 on issuance of \$40,000 bonds for electric light plant. Address The Mayor.

Mo., Marshfield—Marshfield Electric Light & Power Co., capital \$25,000, inceptd. by T. E. Bowdern, L. A. Reynolds, Edith M. Bowdern.

N. C., Hickory—Jos. D. Elliott reported to develop water power on Catawba River below Hosford Shoals.

N. C., Wilmington—Tide Water Power Co., will construct 33,000 volt, 3 phase line totaling about 75 mi. in length, using wood poles, 45,000 volt pin type insulators, and either copper or aluminum steel reinforced conductors; also several small transformer stations with usual control; work by company's forces under supervision of E. E. Kilburn, Wilmington; material not purchased.

Okla., Ketchum—Grand River Hydro Electric Power Co., C. F. Fenstermacher, H. E. Holderman, Royal D. Salisbury will construct 2 minor dams in Grand river to generate 16,500 h. p. for power and lights.

Tex., Brownsville—Valle Electric & Ice Co. (subsidiary of Central Power and Light Co.) organized with R. W. Morrison, Prest. San Antonio, A. C. Prucha, Secy. and Treas. San Antonio; will take over ice, water and light plant at McAllen, Tex.; Pharr Ice, Light and Power Co. (which supplies Pharr San Juan and Alamo); Donna Light and Ice Plant, supplying Donna and Weslaco; Mercedes Electric & Water Co., Mercedes, Tex.; Rio Grande Ice Co.'s plants at San Benito, Harlingen and Houston.

Tex., Spearman—For proposal details see Mch. Wanted—Light and Water Plant.

W. Va., Clarksburg—City and Clarksburg Gas and Electric Co. interested in establishing lighting system for Glen Elk.

W. Va., Grafton—City, Thomas Cather, Mayor, contemplates installing lighting system on Main St.

Flour, Feed and Meal Mills.

Mo., Lebanon—Farmers Produce Exchange has acquired Lebanon Elevator.

Mo., Morrison—Dulle-Meyer Milling Co. of St. Louis, has acquired mill, electric light plant, etc., of Morrison Milling Co.

N. C., Henderson—Vance Mills Co. will enlarge present building, increase output, install additional mch.; cost \$15,000.

Va., Gate City—Johnson Bros. will rebuild burned roller mill.

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MANUFACTURERS RECORD

BALTIMORE, MD.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Foundry and Machine Plants.

Mo., St. Louis—Wood Hydraulic Hoist & Body Co., capital \$10,552, inctpd. by C. A. Wood, C. D. Lynch and S. D. Callender.

N. C., Greensboro—Carolina Steel & Iron Co., J. W. McLennan, Secy.-Treas. and Mgr. will erect 80 x 100-ft. building; mill construction, steel frame; construction by owner; install 50 ft. electric crane. (See Machinery Wanted-Crane (Electric).)

Okla., Ardmore—Brooks Burner Stove Co., Box 186, will build 1-story, 100x90 ft. plant (lately noted burned), brick construction, metal window sash and frames; install motors, shears, punches, saws, hangers, pulleys, presses, etc. (See Machinery Wanted—Sash and Frames (Metal); Machine Shop Equipment; Motors..)

Tenn., Chattanooga—Range Boilers.—Casey-Hedges Co., has begun construction of a range boiler plant on Whiteside St.; 150 ft. square, having floor space of about 30,000 sq. ft., trussed brick construction; daily capacity 500 boilers; estimated cost between \$150,000 to \$200,000.

Tex., San Antonio—Runkle Gear Shifter Co., capital \$10,000, inctpd. by Edith S. Chandler, J. E. Crabb and Clarence Hees.

Gas and Oil Enterprises.

Ark., El Dorado—F. M. Lege of Dallas, has acquired 400-acre farm and will construct 100 steel tanks of 55,000 bbl. capacity each; cost about \$2,000,000.

Ark., El Dorado—Marr-McFadden will construct two 55,000 bbl. tanks; has let contract for six 55,000 bbl. tank at Louann.

Ark., Pine Bluff—Pine Bluff Refining Co. will install Bladsell process of pressure stills at plant; cost \$100,000; increase storage facilities to 3000 bbls. daily.

Ark., Smackover—Arkansas Pipe Line & Navigation Co., capital \$3,000,000, Grant Stebbins, Prest., reported to construct pipe line from Smackover to Ritchie, distance of 6 mi.; plans call for construction of six 55,000 bbl. tanks at the loading terminal and four 55,000 and nine 20,000 bbl. for storage; will also construct 100 car loading rack at Callon; company has taken over string of barges owned by Capt. McFadden of New Orleans to transport oil; will probably construct storage tanks at New Orleans.

Ark., Smackover—T. V. Adkinson of Lawton, Okla. and others will construct 6-in. pipe line from Smackover field to Camden; has site for tank farm at Camden; will construct four 55,000 bbl. tanks and two 37,500 bbl. tanks.

Fla., Orlando—Independent Oil Co., capital \$50,000, inctpd. with C. E. Saunders, Prest.; W. C. Dennis, V. P.; Chas. O. Saunders, Secy.

Ky., Ashland—Sandy River Oil Co., capital \$100,000, inctpd. by Harry L. Claiborne of Sandy Hook and R. D. Davis of Ashland.

Ky., Louisville—Southern Oil & Tar Co., changed name from Southern Oil, Tar & Construction Co., and increased capital to \$40,000.

Ky., Maysville—Maysville Gas & Electric Co., hanged name from Maysville Gas Co. and increased capital to \$250,000.

La., Baton Rouge—Standard Pipe Line Co., capital \$25,000,000, inctpd. with A. Clarke Bedford, Prest.; New York; F. R. McGrew, V. P.; Shreveport; H. T. Austermeil, Secy., Shreveport.

Miss., Gulfport—Gulf Coast Oil Refining Co. will enlarge plant.

Mo., Campbell—City granted natural gas franchise for heating and lighting to Frisco Oil & Gas Co.

Mo., Hannibal—Great Lakes Petroleum Co., capital \$7500, inctpd. by E. N. Oetting, D. S. Griffith, W. H. Nerlich.

Mo., St. Joseph—Carbonless Oil Co., capital \$50,000, inctpd. by C. A. Meidinger, J. Higgins, P. Dubach.

Mo., St. Louis—A. C. Bauer Oil Co., capital \$20,000, inctpd. by A. C. Bauer, R. J. Schorr, P. R. Guth.

Okla., Tonkawa—Golden Rule Refining co. of Wichita, has 7 acre site and will erect refinery.

Okla., Tonkawa—Constantine Refining Co. has acquired 50-acre site and will construct refinery.

Okla., Tonkawa—Champlin Oil & Refining Co. of Enid, Okla. has 50-acre site and will erect refinery.

Okla., Tonkawa—Gypsy Oil Co. will construct pipe line to Tonkawa field.

Tex., Breckenridge—Central Gasoline Producing Co. will rebuild plant burned at loss of \$30,000.

Tex., Breckenridge—Great Texas Oil & Refining Co. is constructing oil refinery to cost \$1,200,000; will refine crude oil and mfne. by-products; daily capacity 5000 bbls.

Tex., Fort Worth—Mackenzie Oil Co. of Texas, capital \$25,000, inctpd. by I. L. Gaus, P. L. Mackenzie.

Tex., Mirando City—Kanoka Petroleum Co., capital 50,000, inctpd. by I. G. Lee, C. A. Ingersol and R. W. Tyler.

Tex., New Braunfels—Clear Springs Gas Co., capital \$20,000, inctpd. by L. W. Link, Edwin S. Gold and Ernest Kruse.

Tex., Sherman—Mutual Tank Line Co., capital \$50,000, inctpd. by Kate E. Heflin, W. F. Drake and G. J. Dirge.

Tex., Wichita Falls—Bellby Natural Gas Co., increased capital \$150,000 to \$250,000.

W. Va., Huntington—Redfern Oil Co. increased capital to \$60,000.

W. Va., Weston—Chevaux de Frise Oil & Gas Co., increased capital to \$50,000.

Ice and Cold-Storage Plants.

Ala., Gadsden—C. K. Crossfield has begun construction of ice plant, daily capacity 20 tons. (Lately noted.)

Fla., McIntosh—McIntosh Utilities Co., capital \$25,000, organized with S. H. Gaitskill, Prest., has under construction 42 x 90 ft. plant, two cold storage rooms 20 x 20-ft. and ice storage room 8 x 20-ft.; plant to be operated by crude oil engine; water to be obtained from 6-in. well which is being put down; contemplates installing electric light plant.

Fla., Tampa—For full details see Canning and Packing Plants.

Fla., Tavares—Tavares Ice & Storage Co., capital \$30,000, inctpd. with E. S. Burleigh, Prest.; E. I. Burleigh, Secy.-Treas.

Fla., Tavares—Chas. H. Worthen, Ossining, N. Y., is reported to establish \$30,000 ice plant.

La., New Orleans—Arctic Pure Ice Co., G. H. Rathe, Prest., reported to erect plant at Bienville and Cortez Sts., electrically operated.

S. C., Georgetown—Carolina Grocery Co., J. J. Scurry, Prest., purchased established ice plant corner Front and King Sts., will operate.

S. C., Greenville—Stonewall Ice Co., John B. Marshall, Prop., 1500 Bumcomb St. (lately noted to have begun construction.) let contract to W. A. Allison, at \$13,000 to erect concrete and brick construction plant; install electric driven mchy. purchased; daily

capacity 30 tons of raw water ice. (See Mchy. Wanted—Pipe; Calcium Chloride; Belting.)

Tex., Brownsville—For full details see Electric Light and Power Plants.

Tex., Columbus—Citizens' Ice & Cold Storage Co., capital \$10,000, inctpd. by T. P. Luck, John Hastedt and E. G. Miller.

Tex., El Paso—Globe Ice & Cold Storage Co., increased capital from \$80,000 to \$264,000.

Tex., Fort Worth—Brown-Joseph Ice Co. increased capital to \$60,000.

Tex., Houston—South Texas Cold Storage & Warehouse Co., will erect concrete, steel and wire glass building, 8 stories with three basement compartments each to be 70 x 25 ft. used for cold storage; first, second and third floors used for storage and warehouse purposes, fourth and fifth for parking and repairing cars, sixth, seventh and eighth floors for offices, display rooms, etc.; install eight freight and two passenger elevators, automatically controlled; estimated cost \$1,080,000; D. D. Pittman, Archt.

Tex., Marble Falls—G. L. Jones, plans establishing ice plant.

Irrigation.

Tex., Devers—Devers Canal Co., capital \$100,000, inctpd. with E. W. Hoyt, V. P.; E. S. Nolte, Secy.-Treas., Nome, Tex.; established system, will irrigate about 4000 acres of rice lands.

Land Developments.

Fla., Bartow—Wear Brothers, Inc., capital \$30,000, inctpd. with W. H. Wear, Prest.; H. M. Wear, V. P.; Dan F. Wear, Secy. and Treas.

Fla., Crooked Lake—Leslie Grove Co., capital \$25,000, inctpd. with Frank Leslie, Prest.; Estelle M. Leslie, V. P.; Arthur Leslie, Secy. and Treas.

Fla., Fort Lauderdale—Carmichael Development Co., W. H. Carmichael, Prest., M. H. Carmichael, Mgr., capital \$250,000, will improve 700 acres in Broward County for residential and business development; will install underground electric lighting system; city water works; septic tanks; asphalt surfaced rock roads and streets; will expend about \$2,000,000; S. B. Hall, Ft. Lauderdale, Archt. and Construction Engr.; work by company's forces.

Fla., Miami—Miami Land & Fruit Groves Co., Gerald Savage, Secy. and Treas.; will develop 175 acres for subdivision.

Fla., Panama City—Georgia-Florida Packing & Orchard Co., Thomasville, Ga., will develop 3000 acres of pineapple pear, for use in company's cannings plant; will also develop 20,000 acres of Satsuma oranges, etc.

Fla., West Palm Beach—Colonial Land Co. of Trenton, N. J., B. N. P. Miller Prest. and E. G. B. Miller, Secy. both of West Palm Beach, has 65 acre site on South Dixie highway and will develop for subdivision; bids being received for clearing land, installing sidewalks, water mains, electric lights, etc.; will widen Dixie highway to 60 ft.

Ga., Augusta—Walton Way Realty Co., capital \$50,000 inctpd. by E. O. Cooper, H. W. Shaw, Bertram Maxwell.

Ky., Whitesburg—Collins Harvie Land Co., capital \$100,000, inctpd. by Sam Collins, Lewis E. Harvie and D. I. May.

Ky., Whitesburg—Letcher-Elkhorn Land Co., capital \$50,000, inctpd. by D. I. May, Lewis E. Harvie and Sam Collins.

La., Alexandria—Hardtner Realty Co. increased capital to \$120,000.

La., Baton Rouge—Louisiana Central Land Co. increased capital to \$100,000.

Md., Salisbury—Tony Tank Development Co. plans developing 24-acre tract on Aleen Rd. for residential section.

Mo., St. Louis—Missouri Realty Co., capital \$10,000, inceptd. by S. Goldberg, Joseph Boxerman, Max Goldman.

Mo., St. Louis—Tober Realty Co., capital \$50,000, inceptd. by Abe Tober, Albert Salfer, Louis Mayer.

Mo., St. Louis—Fendler-Reinhardt Construction & Real Estate Co., capital \$5000, inceptd. by Mamie U. Fendler, G. W. Reinhardt, E. C. Fendler.

N. C. Charlotte—E. S. Draper, Landscape Archt. and City Planner, 11 E. 5th St., will make surveys and prepare landscape plans for development of estate for T. E. Cheek, Durham, N. C.; also prepare plans for development of residence grounds for Mrs. Ashby Lee Baker, Raleigh, N. C.

Okl., Oklahoma City—Chester Davis will develop Beverly Hills for suburban homesite.

S. C., Greenville—Adolf Schulz, Landscape Gardner, has plans for improving and enlarging cemetery.

Tenn., Knoxville—Cecil H. Baker, N. E. Logan, John J. Craig and others interested in organization of company with \$50,000 capital to develop Westmoreland Heights.

Tex., Dallas—Fidelity Realty Corp., capital \$40,000, inceptd. by A. W., H. W. and James Walker.

Tex., Highland Park—For full details see Water Works.

Va., Danville—Gwynn Corporation, capital \$60,000, inceptd. with Rice Gwynn, Pres.; A. T. Gunn, Secy.

Va., Roanoke—Houston Land Co., capital \$50,000, inceptd. with Geo. W. Chaney, Pres.; A. T. Lloyd, Secy.

Va., Roanoke—Real Estate Exchange, capital \$25,000, inceptd. with J. E. Palmer, Pres.; L. O. McIlwain, Secy.

W. Va., Charleston—Colonial Land Co., capital \$15,000, inceptd. by J. B. Crowley, J. B. Madison, H. J. Geoghan.

Lumber Manufacturing.

Ark., Bigelow—Dierks Lumber & Coal Co. of Kansas City, Mo. acquired property of the Fourche River Lumber Co.; will operate.

Mo., Kansas City—Schutte Lumber Co. will expend \$100,000 on construction of new plant at 31st. and Southwest Blvd. near Wyoming; erect 35 x 150-ft. office building and garage, track sheds, and equip planing mill.

Mo., Kansas City—Berkshire Lumber Co., capital \$600,000, inceptd. by B. N. Berkshire, B. A. Green and J. M. Rood.

Mo., St. Louis—Tri Lumber Co., capital \$20,000, inceptd. by H. R. Meyer, A. Meyer and William Domermuth.

N. C., Asheville—Blue Ridge Lumber Co., capital \$25,000, inceptd. with Frank B. Short, Pres.; K. D. Fingal, Secy.

S. C., Greenville—Caldwell-Newsom Lumber Co., capital \$45,000, inceptd. with Howard Caldwell, Pres.; James M. Richardson, Treas.

Tenn., Knoxville—Appalachian Land & Lumber Co., increased capital from \$50,000 to \$200,000.

Tenn., Madisonville—Sanderson Lumber Co., reported to rebuild burned lumber mill.

Tex., Amarillo—Amarillo Lumber Co. increased capital from \$40,000 to \$125,000.

Tex., Center—O. B. Gillespie, plans establishing lumber plant, acquired 2,500,000 ft. timber land.

Tex., Conroe—Bennette-Davison Lumber Co., capital \$30,000, inceptd. by J. O. Bennette, G. E. Davison and J. C. HNL.

Tex., Honey Island—Williams Hardwood Co., capital \$10,000, inceptd. by P. S. Wiggins, N. E. and T. J. Williams.

Metal-Working Plants.

Ky., Ashland—Ashland City & Metal Products Co., capital \$25,000, inceptd. by R. R. Peebles, J. L. Neehan and C. S. Peebles.

Ky., Shelbyville—Empire Cream Separator Sales Co., inceptd. by Frank Reiss and George Temple, Shelbyville; B. F. Hardesty, Louisville, Ky.

Md., Baltimore—Meters—Maryland Meter Works, Edmund S. Dickey, Gen. Mgr. 224 Holliday St., will erect 1 story fireproof addition on Holliday St. and a new 7 story modern concrete building on Saratoga St., present building to be demolished for the improvements; invite bids.

Mo., Kansas City—Economy Land Co., capital \$250,000, inceptd. by J. A. Maynard, F. Ryneal and J. G. Brinkman.

Mo., St. Louis—Dean Metal Co., capital \$20,000, inceptd. by E. G. Dean, L. Meinecke, Jr., and Wm. Deubel; mfrs. metal specialties.

W. Va., Lost Creek—Gray Automatic Time Saver Co., capital \$50,000, inceptd. by S. A. and A. B. Post, Lost Creek; H. W. Shotts, Clarksburg, W. Va.

Mining.

Ga., Graysville—Chicamauga Quarry & Construction Co., W. S. Holmes, Gen. Mgr., Chattanooga, Tenn., will operate new plant, daily capacity about 500 tons crushed stone, develop 80 acre tract.

Ky., Marion—Kentucky Fluorspar Co., capital \$50,000, inceptd. by C. S. Nunn and O. S. Denny, both Marion; A. A. Northern, Hopkinsville, Ky.

La., Lafayette—Star Salt Corp., John J. Kean, Mgr. has under construction plant to evaporate salt from brine pumped from wells; capacity 200 tons. (Lately noted.)

Md., Hagerstown—Hagerstown Lime & Chemical Co., J. S. Myers, Pres. will erect plant, open bids Mch. 15; install dryer, conveyor, pulverizer, etc., majority purchased; daily capacity 100 tons of agricultural lime, marl, etc. (See Mch. Wanted-Dryer.)

Va., Orange—Rapidan Soapstone Corp., capital \$200,000, chartered with D. N. Davidson, Secy.; W. C. Newman, Gen. Mgr.; will develop soapstone deposits near Somerset; acquired 185 acres land.

W. Va., Huntington—Wilson Sand & Supply Co., G. A. Northcott, Mgr., has acquired controlling interest and will assume active management of plants owned by the company located at Kenova, Ashland, and two in Huntington.

Miscellaneous Construction.

Fla., St. Petersburg—Incinerator—City, voted \$125,000 bonds for purchase of land and construction of incinerator. H. T. Davis, Director of Finance.

Fla., West Palm Beach—Docks, etc.—Lake Worth Inlet Comsn., I. C. H. Ellis, Secy. purchased 555 ft. tract joining on the south, the land now owned by the commission, making a total water frontage of 1055 ft. for dock and terminal purposes; has \$275,000 available; channel through the inlet is nearing completion and future work will be the erection of docks, terminals and warehouses. (Lately noted.)

La., Lake Charles—Canal—Streater Dredging Co. has contract to construct Calcasieu-Sabin section of the Intercoastal canal, 12 x

40 ft. along the south land of the present 5 x 40 cut, commencing 3 mi. west of Calcasieu lake; Col. E. J. Dent, Dist. Engr., of New Orleans.

Md., Baltimore—Tanks—Standard Oil Co., St. Paul and Franklin Sts. reported to erect 5 steel tanks at 1st Ave. and 3rd St., four to be 45 x 40-ft. and one 60 x 40-ft.; estimated cost \$25,000; construction by owners.

Md., Baltimore—Incinerators—City, Wm. F. Broening, Mayor, interested in installing 3 incinerating plants for paper and rubbish; August E. Christhill, Highway Engr.

Mo., Joplin—Swimming Pools—Park Board let contract to F. N. Richardson at \$14,694 to complete construction of swimming pools in Cunningham and Mineral parks. (Previously noted.)

N. C., Asheville—Lakeview Corp. has begun construction of dam for Beaver Lake, dam to be 40 ft. high and 130 ft. long, approx. cost \$60,000.

Tex., Beaumont—Docks—For full details see Sewer Construction.

Va., Petersburg—Dredging—W. H. French Co., lowest bidder for the maintenance and improvement work in the Appomattox river, deepen channel for 5 mi.; work requires removal from channel of approx. 39,000 cu. ft. of materials; estimated cost \$11,000.

Miscellaneous Enterprises.

Fla., Cocoa—East Coast Laundry Co., capital \$25,000, inceptd. with W. H. Ford, Prest.; F. G. Poole, Secy.-Treas.

Fla., Eustis—Seminole Films Co., (lately noted inceptd., capital \$250,000,) organized with Dr. Edgar J. Banks, Prest., will erect studio, laboratory and other buildings included in group for motion picture work, all buildings to be of Spanish style of architecture, stucco finish and fireproof.

Fla., Fort Myers—Fort Myers Steamship Co., capital \$100,000, inceptd. with I. W. Riggs, Prest.; Harry Botts, Secy.-Treas.

Fla., Sarasota—Sarasota Publishing Co., capital \$50,000, inceptd. with T. J. Campbell, Prest.; W. Y. Perry, Secy.

Fla., West Palm Beach—Construction—Wilcox Bros., Inc., 613 Guaranty Bldg., capital \$100,000, inceptd. with Clarence Wilcox, Prest.; Jerome F. Swart, Secy.

Ky., Hopkinsville—Hancock Warehouse Co., increased capital from \$10,000 to \$20,500.

Ky., Louisville—Portland Theatre Co., capital \$40,000, inceptd. by George Strong, James Carragien.

Ky., Louisville—Crushed Stone—R. B. Tyler Co., increased capital from \$100,000 to \$150,000.

Ky., Louisville—Louisville News Publishing Co., inceptd. by William Warley, William and Frank Calvert.

Ky., Louisville—Standard Printing Co., increased capital from \$100,000 to \$300,000.

Ky., Long Lick P. O. Stamping Ground—Farmers' Union Supply Co., inceptd. by W. A. Perry, L. D. Roby and Dave Rogers.

La., Jeanerette—Teche Transfer Co., increased capital to \$75,000.

La., New Orleans—Lighting Fixture Supply Co., Inc., increased capital to \$35,000.

Mo., Blackwater—Farmers' Exchange and Co-operative Assn., capital \$25,000, inceptd. by D. Myer, J. R. Higginbotham and S. C. Thornton.

Mo., Bonne Terre—Printing—Emil Calman & Sons, Inc., capital \$20,000, chartered by Emil, E. C. and Emma A. Calman.

Mo., Clayton—Leader Printing & Publishing Co., capital \$25,000, inceptd. by W. M. Botz, C. T. Shubert and F. L. Kerth.

Mo., Jefferson City—Construction—Felix Kerstig Co., capital \$10,000, inceptd. by Louis Borcharding, R. Jablonsky and F. J. Kerstig.

Mo., Kansas City—Mutual Publishing Co., capital \$50,000, inceptd. by C. J. Shelton, H. A. Bufton and A. A. Lindeman.

Mo., St. Louis—Artistic Printing Co., capital \$10,000, inceptd. by J. W. Budina, H. M. Welsh and W. H. Hand.

Mo., St. Louis—Frank Voelker Electric Co., 3608 N. 14th. St. (lately noted inceptd., capital \$10,000) organized with Frank Voelker, Prest.; Arthur Voelker, Secy.-Treas.

Mo., St. Louis—Red Diamond Cab Co., capital \$20,000, inceptd. by H. Sonnenschein, D. Smith and H. Masterson.

Mo., St. Louis—Laundry—Victor Linen & Towel Service Co., 2325 Texas & Victor Sts., (lately noted inceptd., capital \$15,000) organized with Bernard Kearns, Prest.; F. A. Reilly, Mgr., will remodel present building.

Mo., St. Louis—Melbourne Florists, Inc., chartered by H. L. Lauscher, F. M. and Elsie Anthes.

N. C., Charlotte—Mecklenburg Dairy Co., Inc., N. J. Orr, Secy. increased capital to \$100,000.

N. C., Greensboro—National Advertising & Securities Co., capital \$25,000, inceptd. by E. P. Prunty, Greensboro; L. Helvenston and G. F. Hinman, both Charlotte.

Tex., Dallas—National Warehouse & Forwarding Co., capital \$80,000, inceptd. by H. V. Wheeler, F. L. Robertson and C. P. Vaughan.

Tex., Dallas—Construction—Smith Bros., Inc., capital \$1,100,000, inceptd. by F. A. and J. H. Smith, R. J. Windrow.

Tex., Fort Worth—Binyon-O'Keefe Fire Proof Storage Co., increased capital to \$75,000.

Tex., Houston—Construction—Keystone Building Co., capital \$150,000, inceptd. by J. W. Colvin, Ralph B. Feagin and W. A. Parish.

Tex., Texarkana—Potts-Sanders Co., capital \$12,000, inceptd. by O. M. Sanders, Trammel Sanders and O. L. Burford.

Tex., Waco—Crow Brothers Laundry, capital \$35,000, inceptd. by Frank Crow, R. L. Barclay and Jas. W. Adams.

Va., Norfolk—Virginia Coaling Corp., L. R. Wigg, Secy. increased capital to \$25,000.

W. Va., Charleston—Construction—Dougher-Boone Construction Co., capital \$1,600,000, inceptd. by E. J. Taylor, Ansted, W. Va.; D. W. Boone, Lookout, W. Va., and J. E. Dougher, Smoot, W. Va.

W. Va., Wheeling—Callahan-Faris Building Co., capital \$50,000, inceptd. by P. R. Callahan, F. F. Faris and M. M. Callahan.

W. Va., Wheeling—National Transportation Co., capital \$25,000, inceptd. by C. A. Vaden, P. J. McGinley, and F. P. Carnahan.

Miscellaneous Factories.

Ala., Opelika—Bakery—W. H. Ingram, Ingram's Sanitary Bakery, will erect 2-story, 25 x 125 ft. brick, mill construction plant; daily output 500 loaves of bread and cake; will install \$10,000 bakers mchy.; lately noted. (See Mchy. Wanted—Bakers Machinery.)

Fla., Jacksonville—Cordova Hat Co., 411 St. James Bldg., Wm. Nussbaum, Prest. has plant for mfr. of hats from vegetable fibre; wkly. capacity 100 doz.; contemplates increasing to 100 doz. daily. (Lately noted.)

Fla., St. Petersburg—Carbonless Refining Co. of Louisiana, capital \$7,000,000, inceptd. with James R. Bussey, Prest.; E. D. Dunn, V. P.; James M. Wright, Secy.

Fla., Tampa—Frozenrite Ice Cream Co., capital \$50,000, inceptd. with J. G. Bedingfield, Prest.; C. A. Edwards, V. P.; M. R. Bedingfield, Secy.

Ga., Atlanta—Orange Crush—Justin M. Reese, 36 E. North Ave., Atlanta, Ga. contemplates establishing plant for mfr. of Orange crush. (See Mchy. Wanted—Crushing (Orange) Machine.)

Ky., Lexington—Peterson Bros. Milk Products Co., capital \$20,000, inceptd. by Clarence H. Peterson, of Chicago, Rueben W. and Esther E. Peterson both of Lexington.

Ky., Louisville—Mattress—A. Neiman & Co. have plans and will soon let contract for erection of 3 story plant at Main and Jackson Sts.

La., Crowley—Ice Cream—P. L. Farrell has site and will erect ice cream factory and creamery; construction to begin Feb. 1.

La., Monroe—Ouachita Candy Co., Inc., capital \$50,000, inceptd. with Henry Biedenharn, F. C. Holden, Secy.-Treas.; will establish plant to mfr. candy.

La., Napoleonville—C. C. Percy, and Geoffrey Barton purchased Oakley Sugar Co.'s plant; will organize company and operate.

La., New Orleans—Canvas Awnings, etc.—The Foster Mfg. Co., 529 Magazine St. has acquired site on Julia Sq. and will erect plant to mfr. canvas awnings, flags and rope.

Mo., Kansas City—Cereal Products—Wheatone Products Co., capital \$7500, inceptd. by L. S. Farder, Alfred W. Dahlberg, M. H. Norton.

Mo., Kansas City—A. G. Olson Co., capital \$50,000, inceptd. by A. G. Olson, S. J. Walker, J. N. Blomquist.

Mo., Kansas City—Sensation Beverage Co., capital \$100,000, inceptd. by H. A. Barr, J. I. Ricketts, R. Leonard.

Mo., Kansas City—Consolidated Radio Corp., capital \$5000, inceptd. by T. M. Barham, F. F. Raphael and Ola Raphael.

Mo., Kansas City—Superior Cone Corporation, capital \$15,000, inceptd. by E. G. Andalaft, J. R. Stewart, A. G. Andalaft.

Mo., Kansas City—Phillips-Morgan Estates Corp., Lex L. Morgan, Prest., offices 607 Ridge Bldg., will expend about \$60,000 in construction of paper mfr. plant; 2 buildings, 50x220 ft. each, brick, concrete and tile; contracts let; H. Greene Construction Engr., 607 Ridge Bldg. (Lately noted.)

Mo., St. Louis—St. Louis Braid Co., capital \$25,000, inceptd. by J. E. Moser, F. J. Oltman, A. F. Barnes.

Mo., St. Louis—Leather Belting, etc.—The Dryden & Leyden Mfg. Co., capital \$50,000, inceptd. by J. W. Dryden, Jr., J. L. Dryden, H. J. Harms.

Mo., St. Louis—Millus Shoe Co., capital \$50,000, inceptd. by G. W. Millus, A. S. Patton, J. R. Weyand.

Mo., St. Louis—R. D. Burchard Chemicals Co., capital \$100,000, inceptd. by Ben M. Carriso, R. D. Burchard, J. V. Walsh.

Mo., St. Louis—Ozark Pencil Co., capital \$15,000, inceptd. by E. J. Britton, Jr., F. H. Flisse, M. R. Stahl.

N. C., High Point—Bakery—E. H. Stewart and C. C. Harris of Danville, Va. have acquired the New York Bakery plant, will enlarge and install additional ovens, etc.

N. C., Wilmington—Wilmington Ice Cream Co. organized with E. L. White, Prest. and Treas.; H. A. Huggins, V. P.; C. B. Newcombe, Secy.; has taken over the business of Plummer Ice Cream Mfg. Co. and Artie Ice Cream Co.; plant at 14 Princess St. (Lately noted.)

S. C., Heath Springs—Timmons Drug Co., capital \$5000, inceptd. with J. A. Bridges,

Prest.; J. M. Moberly, V. P. and Secy.; B. Timmons, Treas.

S. C., Union—Clark Clothing Co., capital \$5000, inceptd. with E. J. Clark, Pres.; D. C. Clark, V.P.

Tenn., Chattanooga—Orange Crush Bottling Co., capital \$25,000, inceptd. with Sam V. Tarber of Knoxville, Tenn. has leased building at 1084 Duncan Ave. and will install bottling plant.

Tenn., Knoxville—Candy—Littlefield & Steele, will construct 7 story addition to plant.

Tenn., Knoxville—South West Marble Co., increased capital to \$50,000.

Tex., Dallas—Federal Glass & Paint Co., increased capital from \$75,000 to \$150,000.

Tex., Dallas—Willard Hat Co., increased capital from \$60,000 to \$100,000.

Tex., Dallas—Boedecker Mfg Co., increased capital to \$150,000.

Tex., Dallas—Wax Wrap Paper Co., capital \$50,000, inceptd. by George S. Otey, A. T. Darr and Herbert Rowntree.

Tex., Rotan—Universal Gypsum Co. of Chicago, Ill., will establish plant to mfr. gypsum products, including cement, plaster and wallboard.

Tex., Temple—Coca-Cola Bottling Co. will erect 2 story brick building, cost \$15,000.

Va., Newport News—The Wine Beverage Co., capital \$50,000 inceptd. with Morris Epstein, Prest.; Ben L. Epstein, Secy. both of Hampton, Va.

W. Va., Cameron—Patterson Glass Mfg. Co., increased capital from \$50,000 to \$150,000.

W. Va., Charleston—Westvaco Chemical Co., F. J. Kaufman, Mgr., will improve existing plants and construct additional unit at South Charleston; will mfr. by-products of brine into chemicals; cost \$50,000.

W. Va., Lumberport—Radio Glass Co., capital \$25,000, inceptd. by V. L. Horney, E. P. Boggess, M. F. Bowen.

W. Va., Wheeling—Shall Manufacturing & Machine Co., capital \$15,000, inceptd. by W. F. Shabaugh, J. J. McGill, J. W. Harding.

Motor Cars, Garages, Tires, Etc.

Ark., Texarkana—Creekmore Motor Co., J. J. Creekmore, will erect building corner Pine and 4th Sts.

Fla., Pensacola—Filling Station—Texas Oil Co. will erect filling station on Barrancas Ave., estimated cost \$7000.

Ga., Atlanta—Filling Station—Dunham Oil Co., 424 Peachtree St., let contract to A. K. Adams & Co., to erect 50 x 100-ft filling station, mill construction; \$15,000; to be the companies tenth filling station in the city; install filling station equipment, 7 gasoline and 2 oil pumps; \$2500; Pringle & Smith, Archt. (Lately noted.)

Ga., Augusta—Auto Top & Tire Co., capital \$7000, inceptd. by C. B. Rhodes and W. C. Wise.

Ga., Columbus—Service Station—Kyle Brothers will occupy 50 x 140-ft. service station at corner 1st Ave. and 15th St.; W. B. Harris, Contr.; Hickman & Martin, Archts.; building owned by R. E. Dismukes.

Ky., Barbourville—Universal Garage, capital \$20,000, inceptd. by B. B. Golden, George W. Tye and C. B. Farrott.

Ky., Central City—Barnes Automobile Co., increased capital from \$15,000 to \$200,000.

Ky., Millstone—Ky.-Va. Motor Co., capital \$10,000, inceptd. by W. S. Renaker, Edgar Howell and W. B. Goldsmith.

La., Shreveport—W. J. Brown Motor Co., increased capital to \$25,000.

La., Shreveport—Automobile Accessories—Wray-Dickinson Co., increased capital from \$250,000 to \$500,000.

Miss., Shelby — Automobiles — Rothrock-Carnes Motor Co., (lately noted inceptd., capital \$10,000) organized with W. H. Rothrock, Prest.; E. H. Carnes, Secy.-Treas. and Mgr.; will erect fireproof building, cost \$15,000; open bids Feb. 1; install \$2000 equipment.

Mo., Kansas City—Arrow Garage Co., capital \$10,000, inceptd. by J. R. Gibbons, C. A. and Emma S. Walker.

Mo., Kansas City—Empire Garage Co., capital \$20,000, inceptd. by Jesse Buster, I. M. Kirby and R. F. Zook.

Mo., Kansas City—Automobiles, etc.—Turner Mfg. Co., capital \$250,000, inceptd. by F. W. Joers, C. H. Price and F. W. Fratt.

Mo., Excelsior Springs — Garage—A. M. Bates and Joe Cook will erect garage building corner N. Main and Bluff Sts.; begun clearing site.

Mo., Kirkwood—City Auto & Repair Co., capital \$10,000, inceptd. by E. R. Breneman, Margaret C. F. and O. W. Elme.

Mo., Monett—Filling Station—Wilhoit Oil Co. reported to erect oil filling station; purchased site.

Mo., Sturges—Motor Trade Supply Co., inceptd. by C. H. Donnellon, G. H. Williams and others.

Mo., St. Louis—Motorette Mobile Co., capital \$20,000, inceptd. by John Delbruegge, H. J. Volker and B. Schnell.

Mo., St. Louis—Brand-Steinmeyer Co., inceptd. by L. S. Brand, H. A. and A. Steinmeyer.

S. C., Spartanburg—Carolina-Marmon Co., (lately noted inceptd., capital \$50,000) organized with A. Gelfuss, Prest.-Treas.; E. L. Stallings, V. P. and Secy.

Tenn., Chattanooga—Garage—J. P. Kruestl let contract to Mark Wilson to erect 2 story, 50 x 237 ft. garage on Chestnut St.; fireproof construction.

Tex., Amarillo—Erwin-Chevrolet Co., capital \$15,000, inceptd. by O. E. Erwin, H. C. Pipkin and Howard P. Kuhlman.

Tex., Corpus Christi—Garage—F. P. Bell Storage Co., F. P. Bell, 519 Water St. has acquired 50 x 150-ft. building and established a storage garage; capacity from 75 to 80 cars; later plans installing modern repair shop.

Tex., Orange—Ehlert-Bunch Motor Co. capital \$20,000, inceptd. by Hershel Ehlert, W. P. Bunch and J. A. Stewart.

Tex., San Antonio—Garage, etc.—R. N. McFarland let contract to W. C. Thrailkill to erect 2-story brick garage and servants quarters at Terrell Hills; cost \$8000; L. Harrington & Co., Archt.

Va., Norfolk — Hampton Roads Garage Corp., chartered with J. M. Hayden, Prest.; J. C. Foster, Secy.

W. Va., Fairmont—Tire Service Station, Inc., capital \$10,000, chartered by G. R. Cunningham, J. B. Moore, and L. R. Talkington.

W. Va., West Hamlin—Guyan Motor Co., capital \$10,000, inceptd. by C. I. Wallerton, West Hamlin; M. L. Burnett and H. M. Wadell, both Huntington, W. Va.

Railways.

Ky., Harlan—Southeastern Railroad Company incorporated at Frankfort, Ky., with \$500,000 authorized capital to build line from connection with Louisville & Nashville Railroad on Clover Fork in Harlan County to a connection with Southern Railway near Keokee, Va., about 35 mi. Headquarters at

Big Stone Gap, Va. Officers: L. O. Petit, president, Big Stone Gap; W. A. Hahn, vice president, Norfolk, Va.; J. F. Bullitt, Jr., secretary, Big Stone Gap; C. R. Garver, treasurer, Norfolk.

Road and Street Construction.

Ala., Anniston—J. L. Wilke, Mayor received bids Jan 25, to pave, curb and gutter Wilmer and Leighton Aves. from end to end; H. P. Harris, Engr.; will insure \$100,000 bonds.

Ala., Centerville—For proposal details see Mch. Wanted—Road and Bridge Construction.

Ala., Piedmont—Calhoun County let contract to Nixon Transfer Co., Anniston, Ala., to regrade where necessary, and chert surface road between Piedmont and County line, toward Borden-Wheeler Spring. Address County Commrs.

Ark., Little Rock—City, Mayor Gardener, plans grading, paving, curbing, and guttering Rector Ave. from 6th to 9th Sts. (Paving Dist. No. 342); Markham St. from Ridgeway to Cedar, Crystal Ave. between Markham and Court Sts., Maple St. between Markham and Crystal (Paving Dist. Nos. 337-338).

Ark., Little Rock—Pulaski County Commrs. E. O. Bagley, Commr., will let contract in about 60 days to hard surface Little Rock-Hot Springs Highway from Red Gates to Hot Springs.

Fla., Bradentown—Manatee County Commrs., Myakki Special Road & Bridge Dist., plans completing 48 mi. road; voted \$150,000 bonds; McElroy Engineering Co., Engr., Tampa, Fla. (Lately noted).

Fla., Bushnell—Sumter County Commrs. let contract to Finley Method Construction Co., Jacksonville, Fla., at \$135,000 to build 3 sections limerock and asphalt-penetration road as follows: 8 mi. between Wildwood and Lake County line; 4-mi. link between present hard surface road and Center Hill; 1½ mi. between Bushnell and Dade Memorial Park; also let contract to Barnes & Smith, Bushnell, at \$75,000 to build road in Road Dist. of St. Catherine-Linden to Lake County line at Sloan Ridge.

Fla., Clearwater — For full details see Bridges, Culverts and Viaducts.

Fla., Fort Lauderdale—For full details see Land Development.

Fla., Tampa—For proposal details see Mch. Wanted—Paving.

Fla., Tampa—W. Lesley Brown, plans paving streets in estuary zone as follows; Cumberland east into zone, and 13th south to connect with Cumberland; contemplates opening Lafayette St. from Drew to estuary zone; will receive bids to pave Swann Ave. from Oregon to Howard, and 9th St. from 7th to 6th Aves.; R. D. Martin, City Engr.

Fla., Umatilla—For proposal details see Mch. Wanted—Paving.

Fla., West Palm Beach—For full details see Land Developments.

Fla., West Palm Beach—City, Comsn., let contracts to Greynolds & Moore and Keystone Construction Co., all West Palm Beach, at \$113,226, for street paving 3 sections in Paving Dist. No. 3; Karl Riddle, City Engr. (Lately noted.)

Ga., Columbus—Walter A. Richards, Mgr., plans expending \$25,000 for paving including portions of 11th St. underpass.

Ky., Barbourville—State Highway Comsn., Frankfort, Ky., will receive bids until Jan. 23 to improve and construct drainage structures on 16 mi. road from Barbourville to Corbin.

Ky., Louisa — State Highway Comsn., Frankfort, Ky., will let contract in Feb. to

build Mayo Trail from Louisa to Paintsville.

La., Houma—Louisiana Highway Comsn., Raymond Bldg., Baton Rouge, La., will receive bids in about 2 weeks to grade and improve Houma-Raceland road link.

La., Lake Charles — Louisiana Highway Comsn., Raymond Bldg., Baton Rouge, La. received bids to grade, construct drainage structures and gravel surface 5 mi. Vinton-Toomey section of Vinton-Orange Highway, Calcasieu Parish, F. A. Proj. No. 43-A, G. R. Morris, Lake Charles, at \$29,561.47, low bidder. (Lately noted.)

La., Ruston — For proposal details see Mch. Wanted—Road Construction; Gravel.

La., West Monroe—For proposal details see Mch. Wanted—Paving.

La., Winnboro—Franklin Parish Police Jury plans expending \$400,000 for highway building, including 25 mi. road from Winnboro to Delhi.

Md., Mount Washington Sta., Baltimore—For full details see Bridges Culverts, Viaducts.

Missouri—State Highway Dept., Jefferson City, Mo., will build 16 rds. For proposal details see Mch. Wanted—Road Construction.

Missouri—State Highway Dept., Jefferson City, Mo., let contracts to grade and construct drainage structures on 15 roads as follows: Gentry County, 2 sections to W. R. Larson Construction Co., Sioux Falls, South Dakota, 4.023-mi. road from Albany, westward, F. A. Proj. No. 57-B, at \$6485.96, and 1.894-mi. road from Stanberry, southward, F. A. Proj. No. 37B, at \$36,394.04; both gravel surface; Phelps County, 1.195-mi. road from Newburg, southwestward, S. A. Proj. No. 20,216 to Birmingham, Jones & Lenox, Rolla, at \$23,976.76; Cedar County, 4.671-mi. road from Stockton, east and west, F. A. Proj. No. 192A, to Easley Bros., Aurora, at \$22,046.89; Henry County, 5.662-mi. road from Clinton, northward, F. A. Proj. No. 127, to W. F. Hall, Clinton, at \$18,116.92; Phelps County, 2 sections to Felix Kersting Co., Jefferson City, for 7.564-mi. road from Fulton southward, F. A. Proj. No. 97, at \$75,383.80, and 5.925-mi. road from Fulton, northeastward, F. A. Proj. No. 144A, at \$26,182.50; Green County, .185-mi. gravel surface road from Gallaway, southward, F. A. Proj. No. 162, to M. E. Gillioz, Monett, Mo., Dunklin County, 6 sections, 5.969-mi. road from Kennett, southwestward, F. A. Proj. No. 209A, to Bennett, Robertson & Carmine, Caruthersville, Mo., at \$123,163.01; 12.061-mi. gravel road from Kennett, southwestward, F. A. Proj. No. 209B, to Service Construction Co., Poplar Bluff, Mo., at \$260,597.07; 3.324-mi. gravel road from Kennett, southwestward, F. A. Proj. No. 209C, to Service Construction Co., Poplar Bluff, at \$71,905.34; 6.921-mi. concrete and gravel road from Kennett, east and west, F. A. Proj. No. 212, to W. A. Leach, Poplar Bluff, at \$155,500.09; 11.025-mi. gravel surface road from Campbell, northwestward, F. A. Proj. No. 221A, to M. E. Gillioz, Monett, at \$173,986.48; 6.430-mi. road from Holcomb, northwestward, F. A. Proj. No. 221B, to Albert Creek, Gideon, Mo., at \$76,859.14; Dade County, 5.516-mi. road from East of Greenfield, northward, F. A. Proj. No. 213A, to Carterville Construction Co., Carterville, at \$31,684.28. (Lately noted.)

Missouri—State Highway Dept., Jefferson City, Mo., let contracts to grade, construct drainage structures, etc., on 5 roads as follows: Taney County, 4.15 mi. road from Branson eastward, F. A. Proj. No. 189, to Cox & Chaney, Bronson, at \$16,409.97; Reynolds County, road from Centerville southward, State Proj. Route 21, Sec. 25, to Cooper Construction Service Co., St. Louis, at \$53,161.74; Ozark County, road from Gaines-

ville eastward, S. and F. A. Proj. No. 111 C, to Pioneer Construction Co., Kansas City, Mo., at \$56,692.54; Randolph County, 1,982 mi. road from Moberly westward, F. A. Proj. No. 44 B, to Woodsmall & Woodsmall, Marshall, Mo., at \$11,344.06; Audrian County, 189 mi. road east of Centralia, F. A. Proj. No. 194, to Lewis, W. Spangler, Edinburg, Ill., at \$9748.96. (Lately noted.)

Missouri—State Highway Dept., Jefferson City, Mo., let contracts to grade, construct drainage structures, etc. on 5 roads as follows: Madison County, 6,519 mi. gravel road from Fredericktown westward, F. A. Proj. No. 203 A, to M. E. Gillioz, Monett, Mo., at \$79,739.27; Newton County, 4,854 mi. road from Neosho to Granby, F. A. Proj. No. 155, to Kelley & Underwood, Granby, Mo., at \$24,587.91; Iron County, 7,197 mi. gravel road from Bruel eastward and westward, F. A. Proj. No. 193 A, to J. P. Sparks, Kirkwood, Mo., at \$60,471.81; Phelps County, 3,693 mi. gravel road from Rolla southward, F. A. Proj. No. 110 A, to M. E. Gillioz, Monett, Mo., at \$33,013.92; Platte County, 4,703 mi. from Parkville southeastward, F. A. Proj. No. 48 B, to T. A. Woods Construction Co., Smithville, Mo., at \$54,530.43. (Lately noted.)

Mo., Bethany—State Highway Dept., Jefferson City, Mo., let contract to Rand Construction Co., Kansas City, at \$142,392.02 to grade and asphalt concrete surface road from Bethany westward, Harrison County, State Proj. Route No. 4, Sec. 24. (Lately noted.)

Mo., Carthage—City, Ernest Glenn, Engr., plans paving Lyon St. from Central Ave. to 6th, 6th from Lyon to Grant, 5th and 2nd from Lyon to Howard.

Mo., Forsyth—State Highway Dept., Jefferson City, Mo., let contract to F. J. Long, at \$4000 per mile, for about 4 mi. road from Branson to Kirbyville. (Lately noted.)

Mo., Jefferson City—City contemplates surface treatment and repaving for 31 streets, including Hub, Manilla, Hart, Berry, Lafayette, McCarty, Main, Olive, Park, etc. Address City Engr. Ross.

Mo., Malden—City let contracts for 17 blocks of paving; 5 to be concrete with asphalt top, and 12 to be two-ply gravel, reinforced with 32-in. concrete curb and gutter. Address Mayor Hatcher.

Mo., Troy—State Highway Dept., Jefferson City, Mo., let contract to Wm. A. Cotte & Co., Troy, at \$6000 to gravel 1½-mi. road east of Troy, Lincoln County. (Lately noted.)

North Carolina—State Highway Comsn., Raleigh, N. C., will build 19 roads.

For proposal details see Mch. Wanted—Road Construction.

N. C., Edenton—State Highway Dept., Raleigh, will build 16-ft. hard surfaced road from Edenton to Gates County line, S. H. Proj. No. 113; E. C. Huffin, Wilmington, to supervise work; Wm. Deans, Engr. Detroit, Mich.

N. C., Salisbury—For proposal details see Mch. Wanted—Road Construction.

N. C., Snow Hill—City plans hard surfacing 2 additional streets. Address The Mayor.

N. C., Wadesboro—City will invite bids soon for several miles of street and sidewalk paving, \$400,000. Address The Mayor.

Okl., Bartlesville—John M. Holliman, Commr. of Finance and Supplies, let contract to W. S. Bellows Construction Co., Oklahoma City, at \$35,000 to grade, drain, pave, curb, etc., several streets and alleys. (Lately noted.)

Okl., Duncan—City plans additional paving in residence district; Benham Engineering Co., Consol. Engr., 512 Gumbel Bldg.,

Kansas City, Mo., and Insurance Bldg., Oklahoma City, Okla.

Okl., Muskogee—City plans hard surfacing 40th St. from Military Blvd. to W. Okmulgee Ave. Address The Mayor.

Okl., Muskogee — Muskogee County Commrs., let contract to Stebbins, Wersham, Ellis and Lewis, Muskogee, at \$22,935.20 to build 3½ mi. gravel road from city limits to Spaulding Bridge.

Okl., Muskogee — State Highway Dept., Oklahoma City, Okla., will build 3 sections of roads. For full proposal details see Mch. Wanted—Road Construction.

Okl., Purcell—City plans paving 40 additional blocks; Benham Engineering Co., Engr., 512 Gumbel Bldg., Kansas City, Mo., and Insurance Bldg., Oklahoma City, Okla.

Okl., Waurika—For proposal details see Mch. Wanted—Paving.

S. C., Belton—Town contemplates street paving. W. A. Sanders, Consol. Engr., Anderson, N. C.

S. C., Charleston—City has tentative plans for 9-mi. street paving, including Bogard, Burns, Carolina, Charles, Charlotte, Doughty, etc. Address The Mayor.

S. C., Charleston—City, Jas. H. Dingle, Engr., will improve causeway from Spring St. to Ashley River Bridge.

Tex., Anson—Jones County Commrs. Court, Stamford Road Dist., E. S. Cummings, County Judge, plans building 2 sections of roads as follows: Between Stamford and Lueders, and Stamford and point north of Anson; will vote Mar. 3 on \$200,000 bonds. (Lately noted.)

Tex., Beaumont—For full details see Sewer Construction.

Tex., Center—Shelby County, J. B. Burns, County Judge, let contract to Belton Latimer, Garrison, Tex., at \$47,580.95 for 6 mi. road from Timpson to Attoyac River, S. H. No. 35. (Lately noted.)

Tex., Commerce—W. F. Cornelius, Mayor, plans expending \$100,000 for paving and other street improvements.

Tex., Corpus Christi—P. G. Lovenskiold, Mayor, plans grading Gordon St., in Nueces Bay Heights Addition.

Tex., Fort Sam Houston, P. O. San Antonio—Constructing Quartermaster, received low bid from F. A. Wilson, to build gravel road, lay concrete walks, grade and sod at Station Hospital. (Lately noted.)

Tex., Highland Park—For full details see Water Works.

Tex., Houston—For proposal details see Mch. Wanted—Road Construction; Gravel.

Tex., Lagrange — Fayette County, Geo. Hausler, County Auditor, let contract to Kelly & Co., San Antonio, Tex., at \$42,504.20 to grade and gravel surface 8.03 mi. road on S. H. No. 3 A, from Lagrange to Chandler reservation, and to Lake Robertson, Schulenburg, Tex., at \$13,949.39 for drainage structures. (Lately noted.)

Tex., San Antonio—H. C. Thorman plans paving Hamond, Kayton and Rigby Aves., through 1100 block, in Highland Park.

Tex., Silvertown—Briscoe County, C. D. Wright, County Judge, let contract to McClung Construction Co., Cleburne, Tex., at \$98,009.54, to grade and construct reinforced concrete drainage structures on 22.57 mi. S. H. No. 5-A, and surface 4.7 mi. with gravel and caliche. (Lately noted.)

Tex., Silvertown—For proposal details see Mch. Wanted—Road Construction.

Virginia—State Highway Comsn., Richmond, Va., will build 14 road projects. For proposal details see Mch. Wanted—Road Construction.

Va., Emporia—For proposal details see Mch. Wanted—Paving.

Va., Graham—City plans improving East Graham road, and laying granolithic sidewalk from Hockman to Midway; will vote about Feb. 20, on \$38,000 bonds. Address The Mayor.

Va., Martinsville—State Highway Comsn., H. G. Shirley, Chmn., Richmond, Va., received low bid from Allport Construction Co., Richmond, for 6-mi. concrete road in Henry County, from point on River road toward Bachelor's Hall. (Lately noted.)

Va., Princess Anne—Princess Anne County, Lynnhaven Road Dist., plans building hard surfaced roads, including road from Virginia Beach to Cape Henry. Address County Commrs.

Va., Roanoke—Lilly Land Co., plans building gravel driveway on North Ave. in East Gate Addition.

W. Va., Bluefield—City plans extending cement paving on Hale and Park Aves. Address The Mayor.

W. Va., Clarksburg—Harrison G. Otis, City Mgr., plans extending Main St., from 5th to junction of Main and Pike; plans paving following streets: Traders, Locust, N. 4th, Harrison, Faris, Hamill, Jackson, Oak and Pike.

W. Va., Kenova—City plans improving Beech St. to 13th St. and then to river; also 13th St. Address The Mayor.

Sewer Construction.

Ark., Pocahontas—City, J. W. Brown, Mayor, interested in establishment of sewer system.

Fla., Fort Lauderdale—For full details see Land Development.

Fla., West Palm Beach—City let contract at \$21,020 to Bunker & Lockman for installation of 5 septic tanks.

La., Homer — For proposal details see Mch. Wanted—Sewers.

Md., Baltimore—For proposal details see Mch. Wanted—Sanitary Sewers.

Mo., Richmond—City voted \$60,000 bonds for construction of sewers. Address The Mayor.

Okl., Cushing—For full details see Sewer Construction.

Okl., Muskogee—City let contract at \$5345.70 to Nelson Bros. Co. for constructing 1 mi. sanitary sewer in South Alta Vista addition.

Tex., Beaumont — Terrell Bartlett Engineers, Calcasieu Bldg., San Antonio, Tex., are making preliminary survey for city work to include sanitary and storm sewers, docks, paving plant etc.; cost about \$1,500,000. (Lately noted.)

Tex., Rosenberg—City voted \$50,000 bonds for installing sanitary sewerage system and disposal plant. Address the Mayor. (Lately noted.)

Va., Pembroke—Pembroke Land Co. will install sewerage and water system.

Shipbuilding Plants.

Tex., Port Neches—G. H. Roberts and R. F. Taylor have leased shipyard owned by Swalles, Hance & Rowlin Construction Co.; yard is equipped with marine railway and other facilities for building and repairing of ships.

Telephone Systems.

Miss., Greenwood—Cumberland Telephone & Telegraph Co. will expend \$50,000 in rebuilding and extending service.

Mo., Buffalo—Southwestern Bell Telephone Co., reported to construct metallic long distance circuit from Buffalo to Springfield, including Fair Grove; estimated cost, \$16,500.

Va., Norfolk—Chesapeake & Potomac Telephone Co., C. H. Weber, Mgr. of Norfolk Division, reported as planning to expend \$1,565,000 in Virginia during present year to provide extensions to its facilities in the state; spend \$111,000 in city to provide additional machine switching equipment in the central office at Bute St.

Va., Richmond—Chesapeake & Potomac Telephone Co. of Virginia, C. H. Weber, Div. Mgr. plans expending \$35,000 in city during present year on main line underground work; \$6000 for additional facilities of the Westhampton section; \$4000 for new building work and \$8500 for improvements in the Madison and Boulevard offices, etc.

Va., Roanoke—Chesapeake & Potomac Telephone Co., of Virginia, N. O. Wood, local Mgr. will expend \$150,000 during present year in central office apparatus to improve local toll service.

Textile Mills.

Ala., Alexandria City—Alexandria City Mills will double capacity of mill increasing capacity to 20,000 spindles; construction about May 1.

Ala., Sycamore—Sycamore Mill will increase capacity of mill about 12,000 to 15,000 spindles; construction about May 1.

Ga., Chickamauga—Crystal Springs Bleachery Co., will erect 2 story addition to mill; Robert & Co., Engrs., Atlanta, Ga.

Ga., Thomaston—Thomaston Cotton Mills, R. E. Hightower, Prest., will install additional mchy. for mfre. of tire fabric.

Ga., Thomaston—Peerless Mills, R. E. Hightower, Sr., Prest., will install additional mchy. for mfre. of bed sheets.

La., New Orleans—Marion-Pelican Hosiery Mills, Inc., capital \$10,000, organized with George H. Booth, Prest.; Armstrong Donaldson, V. P.; Geo. D. Booth, Secy.; has plant at 925 Montagu St., with 11 knitting machines, will increase to 30 machines.

Mo., St. Louis—Washington Knitting Mills, capital \$30,000, inceptd. by A. D. Harry and J. C. Friedman.

N. C., Lumberton—Lumberton Cotton Mills, H. P. Jennings, Prest., let contract to Lockwood Greene & Co., Charlotte, N. C. for engineering and supervision of construction of mill building; plant will contain 600 looms to mfre. sateens from products of company's yarn mills; cost about \$750,000. (Lately noted.)

N. C., Reidsville—W. L. Pannill, Robert Graham both of Winston Salem, N. C. and others interested in organizing company with \$150,000 capital to establish knitting mill.

N. C., Thomasville—Amazon Cotton Mills, Chas. G. Hill, Prest., will erect addition to mill for mfre. combed yarns, increasing capacity one-third; 138 x 140 ft.; 1 story; standard mill construction; cost \$250,000; will also construct dwellings for employees.

N. C., Thomasville—Jewell Cotton Mills, has plans by R. C. Biberstein, 1614 Elizabeth Ave., Charlotte, for additional bldg.; 1 story; 80 x 150 ft.; mill construction; install 3000 spindles; have under construction 2-story warehouse; will also construct a number of dwellings.

N. C., Wadesboro—Wadesboro Chamber of Commerce interested in establishment of \$500,000 cotton mill financed and managed by local interests.

Okla., Sand Springs—Sand Springs Cotton Mill Corp., Charles Page, Prest., will soon

let contract for brick work, roofing, etc., on \$115,000 cotton mill; contract for reinforced concrete work let to Patterson Steel Co., Tulsa, Okla.; contract for metal sash let to Tulsa Office, Truscon Steel Co., of Youngstown, Ohio; Southwestern Engineering Co., 910 N. Elwood St., Engrs., Tulsa. (Lately noted.)

S. C., Greenville—Worsted—Lockwood, Greene & Co., Healey Bldg., Atlanta, Ga., are reported to build worsted mill, cost \$4,000,000 to \$5,000,000; electric power drive.

S. C., Groce—Pacific Mills Co., Lawrence, Mass., Robt. F. Herrick, Prest., Boston, reported to establish textile bleaching and finishing plant; Lockwood-Green & Co., Constr. Engrs., Atlanta Ga.,

S. C., Spartansburg—The Beaumont Mfg. Co., D. L. Jennings, Pres. and Treas., will erect 2-story weave shed 250 x 88 ft. and fifty 4-room cottages; cost \$150,000; S. P. Tinsley, Archt.

Tenn., Knoxville—LaConte Knitting Mills, capital \$50,000, inceptd. by W. P. and Chas. P. Biddle, L. S. Hall, C. H. Harvey.

Tex., Beaumont—W. K. Parker representing Planters and Merchants Cotton Mills of San Antonio, interested in erecting \$700,000 plant in Sabine district.

Tex., Gainesville—Dr. C. L. Stokes interested in organizing company with \$500,000 capital to construct cotton mill.

Va., Harrisonburg—Stehlisilks Corp., offices at 104 E. 25th St., New York, will construct 3 story addition to mill.

Water Works.

Fla., Boca Ratone—Water & Light Co., capital \$25,000, inceptd. with J. McL. Stevens, Prest.; G. H. Howard, V. P.; W. L. Brown, Secy. and Treas.

Fla., Fort Lauderdale—For full details see Land Development.

Fla., Plant City—For proposal details see Mchy. Wanted—Water Works Extension.

Fla., West Palm Beach—For full details see Land Developments.

Mo., Holden—City will make extensive improvements to water works system; will rebuild present dam, increase water supply, provide water filtration plant and new pumping station, construct additional water mains and elevated tank; Benham Engineering Co., Consult Engrs., Kansas City, Mo.

Mo., Kirksville—City will vote Feb. 24 on bond issue of \$260,000 for water works improvements, to consist of new intake construction, 10-in. main from river station to reservoir northwest of Kirksville, 650,000 gal. clear water well at reservoir, 20 additional fire hydrants and laying of considerable 6-, 8- and 12-in. main. Address the Mayor.

Okla., Cushing—City contemplates voting in Feb. on \$500,000 bonds for waterworks and sewer improvements; Benham Engineering Co., Engrs., Suite 512 Gimbel Bldg., Kansas City Mo., and Insurance Bldg., Oklahoma City, Okla. (Lately noted.)

Okla., Nowata—City, Oscar Dobbs, City Mgr. will expend about \$65,000 in improvements to water works system. (Lately incorrectly noted to vote on bonds.)

Tex., Highland Park—City voted \$125,000 bonds for water improvements; \$100,000 bonds for streets and \$25,000 bonds for park; Henry R. Davis, Mayor. (Lately noted.)

Tex., Spearman—For proposal details see Mchy. Wanted—Light and Water Plant.

Va., Pembroke—Pembroke Land Co. will install water and sewerage system.

W. Va., Martinsburg—For proposal details see Mchy. Wanted—Reservoir.

Woodworking Plant.

Ark., Keiser—Keiser Cooperage Co., increased capital to \$30,000.

Fla., Little River—Reed Furniture Mfg. Co., capital \$25,000, inceptd. with Frank Evans, Prest.-Supt., Little River; C. F. Moffett, Secy.-Treas., 71 N. E. 46th St., Miami, Fla., has 2 story concrete building; install universal wood working mchy., sander, planer, band saw, jointer, etc.; mfre. reed furniture. (See Mchy. Wanted—Woodworking Machinery; Motor.)

Fla., Palatka—Barrels, etc.—Cody-Boaz Mfg. Co., capital \$10,000, inceptd. with J. B. Boaz, Prest.; L. S. Cody, Secy.

La., Shreveport—Perfection Oak Flooring Co., increased capital from \$300,000 to \$500,000.

Mo., Kansas City—Furniture—Henry J. Vanden Boom Furniture Co., capital \$20,000, inceptd. by H. J. Vanden Boom, J. E. Tillotson and Horace Guffin.

Mo., Osage City—Wood Products, etc.—J. M. Hays Industries, capital \$500,000, inceptd. by J. M. and Alden F. Hays, Jefferson City, Mo. and others; acquired unsold assets of J. M. Hays Wood Products Co., the Hayselton Realty Co.; American Barytes Corp., Eldon, Mo.; together with ore leases in Camden, Miller and Cole counties; concrete wheat elevator, flour and saw mills and gravel equipment at Osage City.

Mo., St. Louis—Office Furniture, etc.—Southern Store Specialty & Register Co., inceptd. by Otto Keune, A. H. Bohann and G. A. Leach.

N. C., Hickory—Furniture—Yeager Mfg. Co., (lately noted inceptd. capital \$125,000) organized with Eubert Lyerly, Prest.; Mason Yeager, Secy.-Treas. let contract to H. C. Cline to erect 2 story, 60 x 144-ft. mill construction building; install woodworking mchy., majority purchased; mfre. furniture, specializing in extension tables, weekly capacity 450; Q. C. Herman, Archt., High Point, N. C. (See Mchy. Wanted—Saw (Self Feed); Kiln Equipment; Spray Machine; Motors.)

Tex., Houston—Curtin Mill Supply Co., capital \$50,000, inceptd. by B. A. McEnnis, G. B. Myer.

Va., Richmond—Merry-Go-Rounds, etc.—Seawell Mfg. Co., capital \$25,000, inceptd. with J. W. Barnes, Prest.; R. A. James, Secy.; mfre. merry-go-rounds, etc.

FIRE DAMAGE

Ark., DeWitt—Methodist Church and parsonage; loss \$10,000.

Ark., Eureka Springs—Missouri & North Arkansas R. R. Co.'s bridge near Eureka Springs; J. C. Murray, V. P. and Genl. Mgr., Harrison, Ark.

Ark., Fort Smith—Fort Smith Handle Co.'s plant; loss \$10,000.

Ark., Little Rock—H. L. Remmel's building.

Ark., McGehee—Two dwellings owned by Dave Meyer and occupied by J. W. Neely and J. R. Riley; loss \$10,000.

D. C., Washington—Norfolk Apts., 201-03-05 D St., N. W. owned by Addison Gilbert Hospital, Gloucester, Mass.; loss \$100,000.

Fla., Clearwater—Building occupied by Central Automobile Co.; loss not estimated.

Fla., Key West—Farley Clothing Co.'s building, 122 Duval St.

Ga., Atlanta—Union Seed & Oil Co.'s plant; loss \$10,000.

Ga., Forsyth—Geo. W. Tribble's livery stable.

Ga., Greensboro—H. H. Caldwell's residence.

Ga., Rome—Norton Drug Co., Fleming Har-ness Co. and Armstrong Hotel Co.'s buildings.

Ga., Tenega—Hargis Lumber Co.'s plant; loss \$60,000.

Ky., Woodbury—Wade Ellis' stock barn near Woodbury.

Md., Baltimore—Building at Lombard and Sharp Sts. occupied by Wearwell Pants Co., Furst Bros. and Hopkins Army & Navy Co.; Joyner-Witz Co.'s building.

Md., Baltimore—Rawlings Implement Co.'s building, 9-11 W. Pratt St.; J. Millard Fisher, Gen. Mgr.

Md., Ellicott City—Rock Hill College; loss \$200,000; Father Michael A. Ryan, Chaplain.

Md., Pikesville—Chas. Butler Rogers' residence, Green Spring Ave., near Rogers Station, Green Spring Valley; loss \$30,000.

Miss., Jackson—W. M. Buie's building on Capitol St.; loss \$25,000.

Mo., Kansas City—Twin City Tractor Co.'s warehouse and office in West Bottoms; loss \$100,000.

Mo., Kansas City—Owl Drug Store, 10th and Main Sts., T. C. Dawless, Mgr.

Mo., St. Joseph—St. Joseph Light & Power Co.'s building; loss \$75,000.

N. C., Brevard—Garage and stable on Main St., operated by Henry & Kueppelberg; total loss \$70,000.

N. C., Charlotte—Residence of A. V. Har-rill, Vice-Pres. Southern Public Utilities Co., Providence Rd., Myers Park.

N. C., Elon College—Administration build-ing at Elon College; loss \$125,000; Dr. W. A. Harper, Prest.

N. C., Fayetteville—A. E. Rankin & Co.'s warehouse; Burns stables owned by Jno. H. Cuiberth and C. L. Beville Estate.

N. C., King—Eugene Rumley's residence; address care Standard Oil Co.'s branch, Win-ston-Salem.

N. C., Kinston—Senator L. P. Tapp's resi-dence, Mitchell and Lenoir Sts.; loss \$17-500.

N. C., Sanatorium—State Sanatorium's kitchen, dining room and new dining hall; loss \$75,000.

N. C., Shelby—Morrison Jewelry Store in Shelby National Bank Bldg.

N. C., Statesville—Powell Tobacco Fac-tory; Wallace Bros' warehouse; Henry House.

Okla., Tulsa—Tulsa Furniture Mfg. Co., 623 S. Xanthus St., loss \$65,000; building owned by E. S. Hutchinson.

S. C., Charleston—Palmetto Drug Co.'s building, 15 Haynes St.

S. C., Leesville—Bouknight home and out-buildings near Leesville; owned by Dr. J. A. Watson, Batesburg.

S. C., Richburg—W. B. Gladden's cotton warehouse.

S. C., Winnsboro—Lebanon Presbyterian Church's parsonage, 6 miles from Winnsboro. Address Rev. C. G. Gunn, Pastor.

Tenn., Charleston—Baptist Church.

Tenn., Jackson—Bedna Young Lumber Co.'s plant; loss \$35,000.

Tenn., Newcomb—Negro school building. Address School board.

Tenn., Watertown—J. T. Cox's building; Citizens' Bank; Cumberland Presbyterian Church (address The Pastor); loss \$75,000.

Tex., Bangs—Garms & Garms, Riley Duff, W. T. Gibson, Johnson Dry Goods Co., Snipes Drug Co. and F. R. Early's buildings.

Tex., Beaumont—Two 50,000 bbl. tanks owned by Magnolia Petroleum Co.; loss \$500,000.

Tex., Gonzales—J. A. Efron's store.

Tex., Ozona—S. E. Couch and H. B. Cox's building.

Tex., San Marcos—Rooming house occu-pied by Mrs. Cornelia Hutton, 210 Normal St.; owned by Mrs. Lucy Ann Burleson.

Tex., Waco—Geo. W. Keas, Sr.'s barn on Bosqueville Rd., 4 miles north of Waco.

Tex., West—West Development Co.'s 5 buildings; Coleman's Drug Store; Texas Power & Light Co.'s office and storeroom; loss \$40,000.

Va., Danville—Danville Country Club.

Va., Fork Union—Fork Union Military Academy's armory building; loss \$40,000.

Va., Newport News—9 buildings at Camp Morrison; owned by Abe Horwitz, S. R. Buxton and Mayor Hiden, all Newport News.

Va., Norfolk—S. L. Nussbaum's residence, 602 Graydon Park; damage \$7000.

Va., West Hampton—Mrs. Archibald H. Harris' residence; loss \$20,000.

Va., White Stone—White Stone High School. Address School Trustees.

W. Va., Collinsdale—Paint Creek Mining Co.'s tippie, loss \$17,000; power house, loss \$4000; 3 dwellings, loss \$6700.

in-a-door beds, sunrooms and sleeping porches; 6 six-room suites.

Tenn., Chattanooga—A. A. Dragoo will erect \$18,000 apartment house, 313 Lindsay St., 3 stories; brick; terrazzo floors in corri-dors; tile kitchens and baths; fireproof boiler room in basement; 12 suites.

Association and Fraternal.

Miss., Jackson—Ancient Free and Accepted Masons will erect Masonic Temple, Scottish Rite and Shrine building, W. Capitol and Monument Sts.; Shrine auditorium, with stage, to seat 2250; Scottish Rite auditorium to seat 450, dining room, kitchen, offices, etc.; H. W. Witcover, Archts., Savannah, Ga.

Tenn., Brownsville—Ancient Free and Ac-cepted Masons purchased site on S. Wash-ington St. adjoining Everett Hotel and plan to erect temple.

Tex., Breckenridge—Young Men's Christian Assn. is considering plans to erect \$50,000 building.

Tex., Greenville—Fraternal Aid Union, Mayor Nichols, Chmn., considering erection of 5-story office building for southwestern headquarters.

W. Va., Huntington—Feramorz Grotto, M. O. V. P. E. R. Dr. Jas. S. Klumpp, Monarch, will erect \$125,000 clubhouse; concrete, steel and brick; 3 stories; 75 x 120 ft.; concrete and hardwood floors; concrete foundation; tile and composition roof; enclosed swim-ming pool at rear; interior tile; ventilators; ornamental terra cotta; rolling partitions; steel sash and trim; wire glass; architect not selected. Address Dr. Klumpp. (Lately noted.)

Bank and Office.

Ark., Blytheville—First National Bank, T. G. Mahan, Vice-Pres., Chrmn. Bldg. Comm., will erect \$90,000 building, Main and 2nd Sts.; Roman Corinthian design; 2 stories and basement; 35 x 140 ft.; reinforced concrete and steel faced with white Indiana limestone; 2 stone columns; revolving plate-glass doors; 2 vaults; marble and bronze banking fix-tures; 6 teller's cages; banking room 35 x 90 ft.; 3 storerooms; offices on second floor; Sieg & McDaniels, Archts., Memphis.

Ga., Rome—First National Bank will re-model and enlarge building.

Md., Baltimore—Drs. H. E. Peterman, C. E. Smith, L. B. Gatch and L. F. Palmer, all 518 N. Charles St., will remodel building, 512 Cathedral St. for offices and apartments; 20 rooms and 4 baths; 4 stories; wood floors; low pressure steam heat; standard or equal plumbing fixtures; \$10,000; James Posey, Engr., 11 E. Pleasant St. Address Herbert G. Jory, Archt., 1207 Munsey Bldg.

Md., Frederick—Commercial State Bank will erect 4-story building.

N. C., Charlotte—Anchor Mills Co., J. Leake Spencer interested, is considering erection of 15-story office building to replace Trust Bldg. lately noted burned, S. Tryon St.; Lockwood, Greene & Co., Engrs., will submit estimates.

N. C., Raleigh—Raleigh Building & Loan Assn., plans to organize company to erect 11-story office building, Fayetteville and Ex-change Sts.; \$330,000; Chamber of Com-merce interested.

Okla., Tulsa—M. A. Youngman purchased site, 12th and Main Sts., and is reported considering erection of 6 or 8-story building; \$200,000 to \$300,000.

Tex., San Antonio—Straus-Frank Co. plans to erect 5-story office building, S. Flores St.; architect not selected.

Va., Richmond—State and City Bank & Trust Co. will erect North Side Branch, North Ave. and Brookland Park Blvd.; Hub-

BUILDING NEWS

BUILDINGS PROPOSED

Apartment Houses.

Fla., Bartow—Garfield Nurseries Co. will erect 3-story apartment house; fireproof; 85x 100 ft.; brick, marble and terra cotta; 12 suites; stores on ground floor; garages; B. C. Bonfoey, Archt., Tampa.

Ga., Atlanta—Massell Realty Co. will erect \$15,000 negro apartment house, 278 Houston St.; 10 suites, oak floors; E. C. Selz Archt. (Lately noted.)

Ga., Columbus Mrs. Minnie L. Flournoy purchased Waddell home, Jackson St., Wynn-ton, will remodel for apartments; \$10,000; Hickman & Martin, Archts.

Md., Baltimore—Myer Abramson, The Shef-field, will erect \$25,000 apartment house, Park Terrace near Lake View Ave.; 3 stories;

colonial brick; 7 suites of 4 rooms and bath to 7 rooms and 2 baths; Stanislaus Russell, Archt., 11 E. Lexington St.

Mo., St. Louis—Worth Investment Co., E. M. Worthington, Pres., will erect \$704,235 apartment house, Waterman and Belt Aves.; 6 stories; fireproof; reinforced concrete; stone and terra cotta trim; hardwood floors; incinerators, cold-air refrigerating plant, gas and electric stoves; 18 five-room suites with tile bath and 18 six-room suites with 2 tile baths; G. L. Miller & Co., Atlanta, arranging finances.

Okla., Tulsa—Harry Stein prepared plans and will erect Country Club Apts., 623 N. Osage St.; \$60,000; stone and brick; 3 sto-ries; 11 baths; steam heat in building and steam heated individual garages; fire places,

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

bard S. Lafoon, Mgr. North Side Branch, temporary address, 2916 North Ave.

W. Va., Huntington—Abe Solof and D. C. Schonthal are considering erecting 14-story bank and office building, N. E. or S. W. cor. 4th Ave. and 11th St.; \$1,200,000; reinforced concrete; fireproof; stone veneer; plan to organize \$1,000,000 trust company to occupy first two floors.

Churches.

Ala., Phenix—First Baptist Church will erect \$10,000 Sunday school building; brick; 3 stories; accommodate 500 to 600; Hickman & Martin, Archts., Columbus, Ga.

Ark., Blytheville — First Presbyterian Church, Judge G. E. Keck, Chmn. Bldg. Comm., will erect Gothic type building; brick faced with limestone rubble; steel trusses; copper shingle roof; auditorium, balcony and Sunday school rooms to seat 500; Sieg & McDaniels, Archts., Memphis.

Ark., Camden—First Baptist Church, M. P. Watts, Chmn. Bldg. Comm., plans to raze present additions and erect 3-story and basement Sunday school building; \$20,000; about 52 x 60 ft.; pressed brick.

Ark., DeWitt—Methodist Church will erect \$50,000 building. Address The Pastor.

Ark., Fort Smith—First Christian Church plans to erect \$50,000 Sunday school addition; accommodate 1000. Address The Pastor.

Fla., Pensacola—First Presbyterian Church will erect \$20,000 Sunday school annex. Address The Pastor.

Md., Baltimore—Our Lady of Pompeii Catholic Church, Rev. Luigi Scialdone, Pastor, will erect church and rectory, 3rd and Claremont Sts.; \$100,000; Italian-Romanesque design; 2 stories; buff colored brick; capacity 500; Frank J. Baldwin, Archt., 328 N. Charles St. (Previously noted.)

Miss., Hazlehurst—Baptist Church plans to erect \$40,000 building. Address The Pastor.

N. C., Durham—Mt. Sylvan M. E. Church, J. E. Cole, Chmn. Bldg. Comm., will erect building on Roxboro Rd.

N. C., Winston-Salem—Thos. Maslin is Chmn. of Bldg. Comm. to erect Presbyterian Church, Runnymede and Cloverdale Aves.; auditorium 47 x 77 ft. with balcony; wood floors; steel trusses; wood rafters; slate roof; Sunday School 68½ x 47½ ft.; 2 stories and basement steel columns and beams; metal floor and ceiling joists; metal stairs; wood rafters; slate roof; both brick walls; terra cotta or stone trim; rift pine and concrete floors; direct steam or hot air heat; W. C. Northup, Archt.; bids opened about Feb. 1. Address Mr. Maslin. (Previously noted.)

N. C., Winston-Salem—Colored Congregational Church, Rev. S. F. Wentz, Pastor, plans to erect \$15,000 building, E. 14th St.

S. C., Conway—M. E. Church, A. C. Thompson, Chmn. Bldg. Comm., will receive bids until Feb. 15 to erect Sunday school building; stucco on brick; 2 classrooms; wood floors; concrete foundation; steam heat; plans from W. D. Harper, Archt., Florence.

Tenn., Chattanooga — Ridgedale M. E. Church, South, Rev. C. G. Eastwood, Pastor, will erect \$45,000 building, 16th St. and Dodds Ave.

Tex., San Antonio—Grove Ave. Church of Christ considering erection of brick building, S. Presa St. and Grove Ave.; architect not selected. Address The Pastor.

Tex., San Antonio—St. Mary's Church, Father A. C. Dusseau, Pastor, will erect building, St. Mary's and College Sts.; 80 x 180 ft.; F. B. Gaenslen, Archt., Alamo Bank Bldg.; Walsh & Burney, low bidders for Bedford stone at \$338.012. (Lately noted.)

Tex., San Antonio—McKinley Ave. Methodist Church will erect brick and concrete addition; plans by Bldg. Comm. under supervision of Will Cornett; rejected competitive bids; construction by day labor under direction of Capt. Gates.

Tex., Devine—Will N. Noonan, San Antonio prepared plans and specifications for tabernacle for combined churches of Devine.

W. Va., Huntington—Rev. Nekolas Malessins, care of Candy Land Confectionery Store, 9th St. near 4th St., will organize Orthodox Creek Church and plans to erect building.

City and County.

Fla., Miami—Comfort Stations—City, Mr. Wharton, City Mgr., will vote on \$15,000 bonds for comfort stations. (See Hospitals, Sanitariums, etc.)

N. C., Asheville—Library—City, Gallatin Roberts, Mayor, considering erection of \$100,000 library.

Tenn., Nashville — Detention Home—Humane Comsn., R. L. Kennedy, Chmn., will erect white detention home; Chas. A. Ferguson, Archt., 63 Arcade; bids opened Jan. 25. (Previously noted.)

Tex., Rosenberg—City Hall—City voted \$70,000 bonds, including \$20,000 for city hall. Address The Mayor.

Courthouses.

S. C., St. George—Dorchester County, M. S. Connor, Secy. Courthouse and Jail Comsn., will enlarge courthouse and jail buildings; courthouse addition, 40 x 56 ft.; jail, 26 x 32 ft.; both 2 stories; reinforced concrete floors and foundations; tin roofs; metal doors; vaults; steel sash and trim; wire glass; Chas. C. Wilson, Palmetto Bldg., Columbia; Hartsville Construction Co., Hartsville, contr. at \$22,633 for courthouse and \$16,074 for jail. (Lately noted.)

Tex., Post—Garza County, H. G. Smith, County Judge, will receive bids until Jan. 30 to erect courthouse and jail; 50 x 94 ft.; 3 stories; reinforced concrete faced with brick and stone; cement, tile and composition floors; concrete foundation; tar and gravel roof over concrete; vapor system heat; 3 wire system electric lights; interior tile; vaults; rolling partitions; steel sash and trim; wire glass; plans and specifications from Guy A. Carlender, Archt.; Massie Bldg., Amarillo; \$82,000 bonds available. (Lately noted.)

Dwellings.

Ala., Alabama City—Dwight Manufacturing Co. is reported to repair and repaint 500 employees' dwellings.

Ala., Gadsden—Joe Gramling will erect residence, Randall St.

Ark., El Dorado—John James will erect 10 bungalows, Mahoney addition; \$4000 to \$6000 each.

Ark., Little Rock—B. L. Ulmer will erect 2-story frame stucco dwelling, 720 Ridgeway St.; \$10,000.

Fla., Eutis — Mattooks-Wheeler Co., purchased tract on Washington St. overlooking Lake Gracie and will develop.

Fla., Grand Island—C. L. Sawyer purchased a 5-acre tract on Lake Eutis; reported to improve and erect several buildings.

Fla., Miami Beach—Beach Construction Co. will erect 2 dwellings and garages, 725 and 808 Michigan Ave.; one frame and stucco, other concrete block; total \$16,500.

Fla. Miami Beach—Mrs. M. M. McCall will erect \$9900 residence and garage, 705 Michigan Ave.; concrete block and stucco.

Fla., Sarasota—Jas. S. Brown, New York, Vice-Pres. and Gen. Mgr. Eagle Bros. Silk Mills, is reported to erect \$200,000 residence; hollow brick, concrete and stucco; 2 stories and basement; 87 x 54 ft.; Italian type; Thos. R. Martin, Archt.

Fla., Tavares—W. S. Cadman, Supt. of Schools, Norwood, O., purchased site on Eustis-Tavares-Mt. Dora Rd. on Lake Gertrude and plans to erect residence.

Ga., Savannah—W. deBruyn Kops will erect brick residence, 45th St. near Abercorn St., Ardsley Park; hot water heat; ventilators; 2 screened porches; J. deBruyn Kops, Archt., 47 Drayton St.; bids until Jan. 26.

Ga., Thomasville—Chas. M. Chapin, New York, present address Howard Hanna house, Thomasville, will erect \$100,000 brick and tile residence to replace burned structure.

Ga., Waycross—W. H. Kwilecki, Bainbridge, will prepare plans for group of 6 room and bath-dwellings.

Ky., Ashland—Robt. T. Caldwell will erect Colonial residence, Grayson Rd.; 10 rooms; construction begun.

Ky., Ashland—Robt. L. Coleman will erect 2-story brick residence, Grayson Rd.

Ky., Ashland — Frank Fannin, Personal Service Director, American Rolling Mill Co., will erect 2-story English type residence, Grayson Rd.; construction begun.

Ky., Louisville—A. M. Marret will erect \$11,000 residence, 2103 Eastern Parkway.

La., New Orleans—E. L. Markel, 4414 Baronne St., prepared plans for \$10,000 raised stucco bungalow, Alexander St. near Carrollton Ave.

Md., Baltimore—Cityco Realty Co., 2 E. Lexington St. will erect 29 dwellings, N. W. and S. W. corners Belwood and Rosedale Aves.; 2 stories; brick; \$70,000.

Md., Baltimore—Herbert C. Forrester, 20 E. Lexington St., will erect 10 dwellings, S. E. cor. Longwood and Elgin Aves., and 3, east side Longwood Ave. near Windsor Ave.; \$52,000.

Md., Baltimore—E. J. Gallagher Realty Co., 919 Munsey Bldg., will erect 3 dwellings, 3160-64 Lyndale Ave.; 2 stories; brick; 27 x 28 ft., 17 x 30 ft., and 18 x 30 ft.; asbestos roof; steam heat; \$12,000; plans and construction by owner.

Md., Baltimore—Hayward Construction Co., 344 Equitable Bldg., will erect 4 dwellings, south side Bowman Ave. near Walnut Ave.; 2 stories; brick; \$13,000.

Md., Baltimore—James Keelty, 1123 Poplar Grove St., will erect 70 dwellings, 709-57 Grantley St., on N. W. side same street, N. W. and S. E. sides Linnard St. near Harlem Ave.; all 2 stories; brick; \$126,000.

Md., Baltimore—Julius O. Knight, Secy-Treas. Hall Bros. & Co. Inc., will erect \$12,000 residence, Dyer Dr. near Edmondson Ave., 63 x 28 ft.; 2 stories; brick.

Md., Baltimore—Northwest Real Estate Co., Morris Bldg., will erect 3 cottages, 3504-06 Edgewood Rd. and 3306 Egerton Pl.; 2 stories; frame; \$15,600.

Md. Baltimore—Owners Realty Co., 2 E. Lexington St., will erect 10 dwellings, S. E. side Dorchester Ave. west of Homer Ave.; 2 stories; brick; 20 x 33 ft.; steam heat; Fredk. E. Beall, Archt., 306 St. Paul St.; owner builds.

Md., Baltimore—Arthur E. Reinheimer, 32 South St., will erect 6 frame bungalows, S. W. cor. Freda and Nicholson Aves.; \$24,000; 1-story.

Md., Baltimore—Edgewood Developing Co., 3501 Forest Park Ave., will erect six 2-family dwellings, south side Liberty Hts. Ave., west of Gwynn's Falls Parkway; \$12,-

000 each; 28 x 54 ft.; hollow tile stuccoed; 2 stories; wood and concrete floors; stone foundation; slate roof; Fredk. E. Beall, Archt., 306 St. Paul St.; owner builds. (Lately noted.)

Mo., Hagerstown—Pennsylvania R. R. Co. will erect 15 frame dwellings for employees near engine terminal; under construction.

Mo., Salisbury — S. Franklyn Woodcock, will erect 5 dwellings, Middle Blvd.; 6 and 7 rooms.

Miss., Durant—J. Louis Longinotti, City Clerk, will erect bungalow, Castillon Blvd.

Mo., Columbia—Harry F. Hulen and Harold C. Baker will erect number of bungalows in spring.

Mo., Kansas City—Blenheim Realty & Investment Co. will erect \$15,000 dwelling, 3816 Washington St.

Mo., Kansas City—Frank Lombardiano will erect \$11,000 residence, 726 Woodland Ave.

Mo., Kansas City—Quality Builders, Inc., will erect 12 dwellings, 3659-3681 Summit St.; \$20,000 each; 4 dwellings, 3683-89 Summit St.; \$50,000 each.

Mo., Kansas City—Dr. H. C. Berger will erect English type dwelling, 5311 Oak St., Crestwood.

Mo., Kansas City—Joe F. Gier will erect \$10,000 residence, 410 E. 54th St.

Mo., Kansas City—Wm. W. Herman will erect six \$2000 dwellings, 5608-18 Brooklyn Ave.

Mo., Kansas City—S. H. Price will erect \$12,000 residence, 1221 W. 59th St.

Mo., Pleasant Hill—Isherwood Floral Co., R. L. Isherwood, Mgr., will expend \$15,000 on improvements to 76-acre tract, Rock Road; remodel 17 houses.

Mo., Rich Hill—Marvin Gench will erect residence, Fayette and West Walnut Sts.

N. C., Charlotte—W. A. Graham will erect residence in Myers Park.

N. C., Wadesboro—Chamber of Commerce organized cotton mill and plans to erect 100 to 125 four to six-room bungalow type dwellings for operatives.

S. C., Anderson—J. P. Catlett will rebuild residence near Orr Mill lately noted burned; 1-story bungalow type; 7 rooms; hardwood and tile floors; brick foundation; concrete porch; rolling partitions; steel sash and trim; steam heat; Chapman Electric Co., electrical work; John Catlett, Seneca, plumbing.

S. C., Greer—J. C. Gains will erect residence, National Highway.

S. C., Greer—D. W. D. Kermerly, Corner Drug Co., will erect bungalow on National Highway.

S. C., Greer—W. M. Thompson will erect residence, Emma St.

Tenn., Memphis—M. H. Palmer will erect 2 brick dwellings, Harbert Ave. and Auburn-dale St.; \$10,500.

Tenn., Memphis—J. J. South will erect 2 brick veneer dwellings, Snowden Ave \$10,000.

Tex., El Paso—Dave Lerner will erect \$18,000 to \$20,000 residence, Stanton and Blacker Sts.; 6 rooms; Italian design; ornamental concrete stone, rug brick and marble; floor and part of walls in sun room to be tiled; art glass; electric fixtures; garage; O. H. Thorman, Archt.

Tex., El Paso—Lee Moor will erect Spanish type residence, 1100 block River St.; wrought iron grills; French windows; Spanish tile; 2 baths; about \$20,000; O. H. Thorman, Archt.

Tex., Houston—A. M. Martin will erect 2-story brick veneer residence and 2-story frame garage, Kipling St.; \$10,000.

Tex., San Antonio—Dr. F. A. Barber will erect 2-story plaster and stucco residence, Laurel Hts., Summit Place; Beverly W. Spillman, Archt.

Tex., San Antonio—D. J. K. Felder will erect \$15,000 residence, between Howard and McCullough Sts.; 9 rooms; tile and stucco.

Tex., San Antonio—D. J. Straus will erect 2-story residence, Belknap and Lynwood Sts.; tile, brick and stucco; tile roof; Atlee B. & Robt. M. Ayres, Archts.; W. C. Thrallkill, low bidder at \$48,952.

Tex., San Antonio—S. C. Bennett will erect 26 dwellings, W. Magnolia Ave., Wood-lawn Place addition; first 6 to cost \$5000 to \$5500 each.

Tex., Stamford—R. V. Colbert will erect \$20,000 brick residence, E. McHarg St.

Va., Lynchburg—Mrs. Ben Schewel will erect \$10,500 residence, Rivermont Ave. and Ashe St.

Va., Norfolk—Home Finance & Construction Co., Inc., 509-11 Flat Iron Bldg., Julian Osborne, Pres., will erect dwellings, apartments, etc.; A. Strange, Archt. and Secy., Boston.

Va., Richmond—L. M. Cheatwood will erect 2 frame and stucco dwellings, 3202-04 Cliff St.; \$11,000.

Va., Richmond—Davis Bros., Inc., 2510 W. Main St., will erect 8 brick dwellings; 20 x 31 ft.; 2 stories; concrete and hardwood floors; brick foundations; mansard, slate and tin roofs; interior tile; plans and construction by owner; L. M. Cheatham, Main St., heating; W. L. Douden, plumbing; electrical work not awarded. (Lately noted in part.)

Va., Richmond—Muhleman & Kayhoe will erect 6 dwellings, 9-11 and 203-11 Tilden St.; brick; 2 stories; 20 x 32 ft.; ordinary hardwood floors; brick foundations; slate, slag and tin roofs; \$7000 each; plans and construction by owner; T. E. Beckner, 214 S. Colonial Ave., hot water heat and plumbing; W. H. Jenks, 621 E. Main St., electrical work. (Lately noted.)

Va., Richmond—Muhleman & Kayhoe will erect 29 dwellings, Maplewood, Idlewood, Woodrow and Stuart Aves.; \$202,000.

Va., West Graham — Mr. Walthall will erect number of dwellings.

Government and State.

Tenn., Nashville—Memorial and Capital Annex Building—Tennessee Memorial Comsn., Hill McAllister, Chmn., Bldg., Comm., will erect Tennessee War Memorial and Capital Annex Building; Edward Dougherty, 900 Stahlman Bldg., Nashville, and McKim, Meade & White, 101 Park Ave., New York, Asso. Archts.; A. J. Krebs & Co., Atlanta, low bidders at \$1,379,750. (Lately noted.)

Hospitals Sanitariums, Etc.

Ala., Greenville—Dr. P. V. Spier will erect 30-bed hospital; fireproof; steam heat.

Ala., Greenville—Dr. L. V. Stabler reported to erect hospital on Oak St.

Ark., Pine Bluff—St. Joseph's Aid of the Universe, Rev. C. H. Jones, Augusta, presiding elder, Pine Bluff Dist., A. M. E. Church, will erect \$40,000 to \$60,000 colored hospital.

D. C., Washington—Dept. of Interior, F. M. Goodwin, Asst. Secy., will receive bids until Feb. 6 to erect laboratory and isolation buildings at St. Elizabeth's Hospital; brick; one 150x38 ft.; one, 134 ft. long with 2 wings 65 x32 ft.; 1 and 2 stories with basement; total cost \$128,000; concrete, hardwood and composition floors; concrete footings; 1 tile and 1 asbestos roof; hollow fireproof tile; plaster board; vault lights; ventilators; steel sash

and trim; heating and electrical work supplied by hospital; plans by C. B. Snyder, Hospital Archt.; drawings and specifications from Dept. (Lately note.)

Fla., Chattahoochee—State will erect \$50,000 receiving ward for negroes at State Hospital.

Fla., Miami—City, Mr. Wharton, City Mgr., will vote on \$2,575,000 bonds, including \$100,000 for addition to city hospital and \$15,000 for comfort stations.

Okla., Tulsa—Chas. A. MacDonald, 405 Security Bldg., prepared plans for maternity hospital, 12th and Utica Sts.; fireproof; \$125,000; main building, 130x35 ft., 3 stories and basement, with addition, 29x39 ft.; tile floors in corridors and operating room; steam heat; foundation constructed to permit erection of additional stories when needed.

Tex., El Paso—City Council will receive bids on construction of city clinic and emergency hospital; plans and specifications from City Building Inspector.

Tex., Houston—Geo. H. Hermann Estate will erect fireproof hospital; 275 beds; reinforced concrete; tile roof; terrazzo and concrete floors; hollow fireproof and interior tile; ornamental terra cotta; metal doors; wire glass; steel sash and trim; nurses' home; service building; Berlin, Swern & Randall, 19 S. LaSalle St., Chicago, and Albert C. Finn, Foster Bldg., Houston, Asso. Archts.-Engrs.; Don Hall, Houston, low bidder at \$852,400. (Previously noted.)

Hotels.

Ark., El Dorado—Ike Felsenthal and associates contemplate erection of \$500,000 hotel on Hill St. between Main and Elm St.; 150 to 200 rooms.

Fla., Fort Myers—W. T. Franklin will erect addition to Franklin Arms; 8 stories; 84 rooms with bath; bids about Feb. 1; B. C. Bonfoey, Archt., Tampa.

Ky., Paintsville—C. T. Rule will erect addition to hotel; 60 rooms; Walston & Meade, Archts., Ashland.

La., New Orleans—Leon Jacobs and A. D. Danziger will erect hotel, Canal and N. Rampart Sts.; \$175,000; 4 stories; 128 ft. square; 150 rooms; Toledano, Wogan & Bernard, Archts.; bids latter part of month. (Previously noted.)

Mo., Kansas City—E. J. Willett and associates plan to erect 8-story apartment hotel at Broadway and Valentine Rd.

Tex., Houston—Bender Bros. are considering erection of 10-story addition to Bender Hotel, Travis St. and Walker Ave.

Railway Stations, Sheds, Etc.

Fla., Center Hill—Atlanta Coast Line R. R., J. E. Willoughby, Ch. Engr., Wilmington, will erect depot; \$20,000; brick, tiling, cement and mill work; 2 sidetracks will be added giving loading capacity of 80 cars per day.

W. Va., Huntington—Chesapeake & Ohio R. R., F. I. Cabell, Ch. Engr., Richmond, Va., will erect addition to 2-story warehouse.

Schools.

Ala., Montgomery—Board of Education, L. C. Cardinal, Chmn., will receive bids until Feb. 20 to erect 2-story and basement brick school on Goode St.; Frederick Ausfeld, Archt., 301 Bell Bldg.; also for 2-story and basement building on Forest Ave.; Okel & Cooper, Archts., Vandiver Bldg.; separate bids on one or both buildings, including plumbing, heating and electric wiring; plans and specifications for both structures at office Frederick Ausfeld, Conslt. Archt.

Ala., Ragland—State Board of Education, Dr. Jno. W. Abercrombie, Supt., Montgomery, will erect \$60,000 building at School of Trades and Industries for Boys.

Ark., El Dorado—School Board, J. Rowland, Chrmn., will erect school in Meller tract.

D. C., Washington—District Commissioners, Cuno H. Rudolph and others, 509 District Bldg., will receive bids until Jan. 29 to erect Smothers School; plans and specifications at Room 427, District Bldg.

Fla., Orlando—City voted \$150,000 bonds to erect 2 grammar schools. Address Board of Public Instruction.

Ga., Atlanta—Board of Education, J. N. Landers, City Purchasing Agt., will receive bids until Jan. 26 to erect Northeast Junior High School; plans and specifications at office Morgan & Dillon, Archts., and A. Ten Eyck Brown, Supervising Archt., Forsyth Bldg.

La., New Orleans—Louisiana School for Blind, S. J. Schwartz, Prest., St. Charles Ave. and Lafayette St., will erect \$30,000 building for work shops, display rooms, etc.; 45 x 80 ft.; 1 story; semi-mill construction; E. A. Christy, Archt., City Hall.

Md., Baltimore—Board of Awards, Mayor Wm. F. Broening, Prest., will erect School No. 69, Granada and Oakford Aves., West Arlington; 265 x 86 ft.; gymnasium wing, 142 x 58 ft.; 3 stories; brick; composition roof; steam heat; Mottu & White, Archts., 322 N. Charles St.; Price Construction Co., Maryland Trust Bldg., is lowest bidder at \$456,000. (Lately noted.)

Miss., Carriere—School District Trustees will receive bids until Feb. 8 at office Albert G. Bear, Archt., Wells Fargo Bldg., New Orleans, for general contract, plumbing and heating of building; 2 stories; 109x114 ft.; brick. (Lately noted.)

Mo., Richland—School Trustees plan to erect building; election Jan. 23 on \$35,000 bonds.

N. C., Aberdeen—Aberdeen Graded School Trustees will receive bids until Feb. 8 at office H. A. Page, Jr. to erect \$50,000 school; 2 stories; brick; wood and cement floors; plans and specifications at office Aymar Embury, 2nd, Archt., 132 Madison Ave., New York, and office Mr. Page. (Previously noted.)

N. C., Elon College—Elon College, Dr. W. A. Harper, Prest., will rebuild administration building damaged by fire.

N. C., Lewisville—Forsyth County Board of Education, W. B. Spears, Supt., Winston-Salem, will erect school; 1 story; stucco; 10 classrooms; W. C. Northup, Archt., Winston-Salem. (Previously noted.)

N. C., McLeansville—Guilford County Bd. of Education, Thos. R. Foust, Prest., Greensboro, will receive bids until Feb. 8 for construction and heating of 14-room brick school; plans and specifications at office Mr. Foust, and secured from Linthicum & Linthicum, Archts., Raleigh. (Lately noted.)

N. C., Pembroke—Indian Graded School Board, G. H. Godwin, Chrmn., will receive bids until Feb. 9 to erect building; 6 class rooms, auditorium, office and library; brick and frame; tar and gravel roof; wood floors; cast stone trim; stoves; plans at office W. D. Harper, Archt., Florence, S. C.

Okla., Chickasha—City will vote Jan. 30 on \$175,000 school bonds; B. B. Barefoot, Prest. (Lately noted.)

Okla., Grove—School Board will erect building; \$32,000 bonds voted.

Okla., Hydro—School Board, L. L. West, Clk., will erect building; brick; bids opened Jan. 20; Maurice Jayne, Archt., 1104 First Natl. Bank Bldg., Oklahoma City.

Okla., Ponca City—Board of Education will erect 2 ward schools; \$60,000 each; fireproof; Smith & Senter, Archts., Okmulgee; will soon vote on \$100,000 bonds.

Okla., Red Rock—School Trustees will erect addition to public school; \$12,000 bonds voted.

S. C., Anderson—Board of Education, E. C. McCants, Supt., will reconstruct south wing of Anderson High School lately noted burned; local contractors will be asked to submit bids Jan. 29; J. J. Baldwin, Archt. (Lately noted.)

S. C., Chester—School Board, M. B. Brockman, Supt., will erect \$125,000 high school 3 stories wood floors; slate roof; Edkards & Sayward, Archts., Atlanta, Ga. (Lately noted.)

S. C., Columbia—University of South Carolina, August Kohn, Chrmn. Bldg. Comm., will erect building, first unit of woman's dormitories; \$100,000; 3 stories; fireproof; slate roof; concrete foundations; hollow fireproof and interior tile; hardwood and concrete floors; texture brick; steel sash and trim; ornamental terra cotta; wire glass; ventilators; mail chutes; steam heat; Rudolph E. Lee, Clemson College, Archt., will supervise construction. (Lately noted.)

Tenn., Memphis—Southwestern Presbyterian University will erect several buildings; Henry C. Hibbs, Archt., Nashville.

Tex., Abilene—Simmons College, T. N. Carswell, will erect dormitory to replace Cowden Hall; \$150,000; 3 stories; David S. Castle, Archt. (Lately noted.)

Tex., Austin—University of Texas, Dr. Robt. E. Vinson, Prest., will erect \$400,000 biology building; Herbert M. Greene Co., Archt., Dallas.

Tex., Ennis — Board of Education, W. O'Banion, Supt., will erect 2 schools; \$60,000 bonds available.

Tex., Loraine — School Trustees, J. M. Bruce, Prest., plans to erect building; brick and reinforced concrete; election Jan. 24 on \$40,000 bonds.

Tex., Port Arthur—Port Arthur Independent School Dist. Trustees will receive bids until Jan. 27 to erect additions and alter manual training commercial high school and DeQueen School; separate bids on general work, plumbing, sewerage, heating, electric work and gas fitting; brick and hollow fireproof tile; concrete foundation; concrete floors; metal doors; ornamental terra cotta; wire glass; interior tile; low pressure steam heat; plans and specifications at office W. B. Ittner, Archt., Board of Education Bldg., St. Louis, and office Board of Education, Port Arthur. (Lately noted.)

Tex., Stanton—School Board will receive bids until Jan. 25 to erect building; 13 rooms and auditorium; plans and specifications at office R. S. Glen, Cisco, and office School Board. (Lately noted.)

Va., Deep Creek—Norfolk County School Board, Jas. Hurst, Supt., 148 Granby St., Norfolk, will erect addition to high school; \$60,000; 2 stories and basement; brick; Chas. M. Robinson, Archt., Times-Dispatch Bldg., Richmond. (Lately noted.)

W. Va., Concord—Concord College, C. C. Rossey, Prest., contemplates erection of physical education building; Wysong & Jones, Charleston, probable archts.

W. Va., Logan—Logan School Dist. voted \$195,000 bonds to erect and improve schools. Address Board of Education.

W. Va., Mt. Dechantel—Board of Education, W. M. Baird, Wheeling, will erect \$40,000 grade school; brick; F. F. Faris, Archt., Wheeling Steel Corp. Bldg., Wheeling.

Stores.

Ark., El Dorado—George James, Crystal Hotel, will erect business block, Cedar and Washington Sts.; \$200,000 to \$300,000; 100 x 125 ft.; 4 to 6 stories.

D. C., Washington—David A. Baer, Union Trust Bldg., will erect store and apartment house on Wisconsin Ave., N. W.; \$36,000; 2 stories and basement; 20x50 ft.; brick; Stearn & Tomlinson, Archts., Continental Trust Bldg.

D. C., Washington—Cohen & Klainans, 3104-06 Georgia Ave., N. W., will erect \$12,000 store and apartment addition; 2 stories and basement; 17 x 72 ft.; brick; Harry E. Brandt, Archt., 504 E. St., N. W.

D. C., Washington—W. Murphy, 800 E. Capitol St., will erect \$30,000 store and apartment building; 2 stories and basement; 60 x 40 ft.; brick; W. R. Lamar, Archt., 1650 Fuller St., N. W.

Fla., Jacksonville—Mrs. Jessie T. Hodges will erect 2-story brick store and apartment house, Main St. between 6th and 7th Sts.; \$18,950; A. L. Clayton, Contr.

Fla., Lakeland—S. H. Collins, 79 Leonard St., New York, will erect 2-story arcade; \$25,000; 40 x 122 ft.; concrete, tile and wood floors; hollow fireproof and interior tile; concrete foundation; built-up asphalt roof; ornamental terra cotta; ventilators; H. D. Mendenhall, Archt.-Engr., Lakeland.

Fla., Miami—Mercer & Harris will erect two 2-story buildings; \$5000 each; concrete block.

Fla., Tampa—Tampa Electric Co. will erect building.

Ga., Atlanta—Jno. W. Grant will erect additions to rear of stores on Whitehall St.; 3 stories and 2 basements; 2 passenger elevators.

La., Baton Rouge—Jos. M. Nolan will erect 2-story brick store and residence; W. T. Nolan, Archt., Canal-Commercial Bldg., New Orleans.

La., Baton Rouge—Sam Scheinuk will erect 2-story floral shop and residence; brick; terra cotta and hollow fireproof tile; tile, cement and wood floor; concrete foundation; composition and tile roof; interior tile; steel sash and trim; wire glass; electric lights; Wm. T. Nolan, Archt., Canal Commercial Bldg., New Orleans; M. P. Thiel, Baton Rouge, is lowest bidder at \$19,480. (Lately noted.)

Miss., Jackson—W. M. Buie will repair building on Capitol St. noted damaged by fire at loss of \$25,000.

Mo., Joplin—Ramsay Dry Goods Co. will erect building, Main and 8th Sts.; 3 or 4 stories.

Mo., Kansas City—F. H. Carter will erect \$18,000 building, 1821-25 Campbell St.

Mo., Kansas City—Nulf & Hansen will erect \$15,000 building, 5037-39 Walnut St.

Mo., Kansas City—Lassie Realty Co., E. J. Willett, Prest., will erect 2-story building, 36th St. and Broadway; assembly hall on second floor.

Mo., Springfield—Burton Building & Investment Co. will erect 3-story fireproof store and office building; \$25,000.

N. C., Asheville—Piedmont Electric Co., Wm. Farr, Mgr., will erect \$50,000 building on Patton Ave. for store and display room, offices, receiving and shipping departments and warehouse storage; 4 stories; 44 x 100 ft.; steel frame; terra cotta front; steel sash in back; tile walls; concrete floors. (Lately noted.)

N. C., Winston-Salem—Joyce Bros. Co. W. V. Joyce, Prest., Main and 5th Sts., will

erect 4-story brick and stone mill construction building; 40x40 ft.

S. C., Camden—David Wolfe will erect brick building on Main St.

Tenn., Chattanooga—H. U. Sims will remodel building on Market St. between 3rd and 4th Sts.

Tenn., Knoxville—Newcomer Co., Morris Bart, Prest., will re-organize company and erect several additional stories to building at 402-08 S. Gay St.

Tenn., Maryville—Dr. Carl and Bart Birchfield will erect 2-story brick building on Main St.

Tex., Ennis—Waller Earles will erect brick building on W. Brown St.; 41-ft. frontage.

Tex., Houston—Finnegan Estate will erect \$25,000 store, Rusk Ave. and Fannin St.

Tex., Houston—J. Silvertown will erect 2-story tile and brick veneer store and apartment house on Jackson St.

Tex., Lockhart—Sam Joseph will erect store on E. Market St.

Tex., San Antonio—Straus-Frank Co. contemplates erection of 4 or 5 story brick and concrete building; 200 sq. ft. floor space.

Tex., Stamford—R. W. Bounds will erect brick business building, W. McHarg and Webb Sts.

Va., Ashland—C. E. Sprinkle, 108 N. 9th St., will erect \$24,000 building, 2410 North Ave.; 21x60 ft.; 3 stories; brick; plans and construction by owner.

Va., Richmond—St. Beveridge, 7th and Byrd Sts., will erect \$15,000 building, 2nd and Marshall Sts.; 1 story and basement; 68 x 48 ft.; brick; H. T. Barnham, Archt., Chamber of Commerce Bldg.

W. Va., Martinsburg—C. E. Kent prepared plans for remodeling Dean Building, Martin and Queen Sts.

W. Va., Wheeling—Hub Department Store, C. Sonnaborne, Mgr., plans to erect building, 14th and Market Sts.; 75 x 125 ft.; brick; stone trim; C. W. Bates, Archt., Natl. Bank of West Virginia.

Theaters.

W. Va., Huntington—Stone Amusement Co., W. E. Deegan, Prest., will erect brick building at 20th St. and 8th Ave. for moving picture theater, apartments and store room; W. B. Smith, Archt., R. & P. Bldg. (Previously noted.)

Warehouses.

Md., Baltimore—George Helfrich & Son, 1040 W. Baltimore St., will erect two 1-story frame sheds, 100 x 75 ft. and 125 x 20 ft., and 1-story brick warehouse, Stricker and Ramsay St.; \$25,000.

Tenn., Nashville—Phillips & Butteroff Mfg. Co. will erect \$70,000 warehouse, 12th Ave. and Hamilton St.; 3 stories; fireproof.

Tex., El Dorado—American Wholesale Grocery Co. will erect \$10,000 warehouse; 60x140 ft.; frame and iron clad.

Va., Danville—European American Tobacco Co., C. D. Riggan, Gen. Mgr., Mutual Bldg., Richmond, will erect 2 warehouses; \$20,000; 1 story; 160x123 ft.; frame and galvanized iron; H. T. Barnham, Archt., Chamber of Commerce Bldg., Richmond.

Va., Lynchburg—European American Tobacco Co., C. D. Riggan, Gen. Mgr., Mutual Bldg., Richmond, will erect warehouse; \$10,000; 1 story; 160x123 ft.; frame and galvanized iron; H. T. Barnham, Archt., Chamber of Commerce Bldg., Richmond.

Va., Richmond—European American To-

bacco Co., C. D. Riggan, Gen. Mgr., Mutual Bldg., will erect several warehouses; 1 story; 160x123 ft.; frame and galvanized iron; H. T. Barnham, Archt., Chamber of Commerce. Va., South Boston—European American To-

bacco Co., C. D. Riggan, Gen. Mgr., Mutual Bldg., Richmond, will erect 2 warehouses; \$20,000; 1 story; 160x123 ft.; frame and galvanized iron; H. T. Barnham, Archt., Chamber of Commerce Bldg., Richmond.

BUILDING CONTRACTS AWARDED

Apartment Houses.

Tex., Dallas—Efficiency Apartment Corp., Great Southwestern Life Bldg., will erect 11-story and basement apartment building, Wolf and Maple Sts., Northeast Dallas; \$1,250,000; brick and steel; caisson foundation; Gilsonite Construction Co., Contr., Great Southwestern Life Bldg. (Previously noted.)

Tex., Houston—E. Chernikowski let contract to erect three 2-story, 4 suite apartment houses, Saulnier Ave.; \$11,040.

Va., Danville—Gwynn Corp., Rice Gwynn, Pres., will erect 9-apartment building, Main and Broad Sts.; \$40,000; E. R. James, Archt.; C. M. Weber, contr.; construction begun.

Bank and Office.

Fla., Lakeland—Futch & Spencer will erect \$60,000 office building, E. Main St.; 4 stories; brick and steel; 50x122 ft.; wood floors; concrete foundation; asphalt built-up roof; elevator; B. C. Bonfoey, Archt., Tampa; H. D. Mendenhall, Engr.; Temple, Floyd & Contr., Contrs.; both Lakeland. (Lately noted.)

Fla., Lakeland—Dr. R. R. Sullivan will erect \$16,000 office building; 2 stories; 21x122 ft.; concrete and wood floors; concrete foundations; built-up asphalt roof; hollow fireproof and interior tile; metal ceilings; ventilators; ornamental terra cotta; H. C. Mendenhall, Archt.; Temple, Floyd & Contr., Contrs.

N. C., Lexington—Dacotah Cotton Mills, Inc., will erect brick office building (lately noted); 50 x 38 ft.; 1 story and basement; tile and hardwood floors; heating and plumbing not given out; electrical work under supervision of Co.'s mechanic; W. L. Harbin, contr. at \$10,400. (See Mch. Wanted—Desks.)

Tex., New Braunfels—Ditlinger Lime Co. will erect 2-story office building; 45 x 90 ft.; monolithic concrete and brick; Johns-Manville built-up roof; combination electric light and fan fixtures, intercommunicating phones, etc.; Giesecke & Harris, Archts., Austin; Walsh & Burney, San Antonio, contrs. at \$25,035. (Lately noted.)

Churches.

Tex., Gonzales—Presbyterian Church will erect \$30,000 brick building; Fred Meisemholder, Contr. (Previously noted.)

Tex., San Antonio—San Fernando Cathedral will erect \$25,000 addition; 2 stories; offices on first floor, rectory above; Leo M. J. Dielmann, Archt.; J. C. Dielmann, Contr. (Lately noted.)

W. Va., Fairmont—Baptist Temple, East Side, Rev. J. Walter Barnes, Pastor, will erect Sunday school addition; 3 stories; 22 classrooms; C. E. Minor, Contr., E. Park Ave.; also considering enlarging main auditorium.

City and County.

Ala., Birmingham—Auditorium—City, D. E. McLendon, Pres. City Commrs., will erect municipal auditorium; fireproof; steel frame; hollow tile and face brick; terra cotta trim; asbestos tile roof; 70 ft. dome; metal frames and sash for windows; cement

plaster interior finish; low pressure steam heat and ventilating system; H. D. Breeding, Archt.; D. E. Manasco given contract for portion at \$191,000. (Previously noted.)

Md., Baltimore—Fire Stations—Board of Awards, Mayor Wm. F. Broening, Prest., will erect No. 59 Engine House, Carl F. Strohmeier, Archt.; Palmer C. Streett, 3408 Norwood Ave., contr. at \$44,000; No. 57 Engine House, Wm. H. Emory, Jr., Archt., 615 Munsey Bldg.; General Contracting Co., 651 W. Baltimore St., contr. at \$43,618; No. 58 Engine House, Fredk. Thomas, Archt., 135 N. Kenwood Ave.; General Contracting Co., contr. at \$44,409; No. 47 Engine House, Roy W. Greer, Archt.; R. B. Mason, 308 W. Madison St., contr. at \$44,789; Engine House No. 55 and Truck House No. 23, Wm. F. Stone, Archt., 300 Woodlawn Rd.; R. B. Mason, contr. at \$55,362; Engine House No. 56 and Truck House No. 24, Wm. F. Stone, Archt.; R. B. Mason, contr. at \$41,985; No. 25 Engine House, Robt. L. Harris, Archt., 25 W. Saratoga St.; R. B. Mason, low bidder at \$56,250; contract not let. (Lately noted.)

Tex., Fort Worth—Fire Station—City, E. R. Cockrell, Mayor, will erect fire station to replace station No. 8, Bellevue and Lipscomb Sts.; bungalow type; C. F. Allen, Archt.; B. B. Adams, Contr., at \$15,584. (Lately noted.)

Dwellings.

Fla., Eustis—Edward Carter, Malone, N. Y., is reported to have let contract to erect residence, Lake Gracie Place.

Md., Baltimore—L. Warrington Cottman, Vice-Prest. Clarence Cottman Co., will erect residence, Charles Street Ave.; Lawrence Hall Fowler, Archt., 300 N. Charles St.; Thos. Hicks & Sons, Contrs., 106 W. Madison St. (Lately noted.)

Md., Baltimore—Mrs. Margaret Shinnick, Treas. Wm. F. Shinnick & Co., Inc., will erect residence and garage, Belvidere Ave. near Roland Ave.; about \$10,000; 2½ stories; frame; 37.6 x 47.2 ft. and 24 x 20 ft.; hot water heat; John R. Forsythe, Archt.; 232 St. Paul St.; Wm. F. Shinnick, Contr. (Lately noted.)

S. C., Laurens—Watts Cotton Mills Co., Geo. M. Wright, Prest., will erect twelve 4-room cottages; J. R. Brownlee, Contr. (See Hotels.)

Tenn., Memphis—Dr. T. H. Ingram will erect English type residence, Jackson Ave. and McLean Blvd.; rough stone, stucco and half timber; wood shingle roof; tile bath; Mahan & Broadwell, Archts.; R. M. Morris, Contr.; construction begun.

Tenn., Memphis—E. B. Lemaster will erect English residence, Jackson Ave. and McLean Blvd.; rough stone, stucco and half timber; wood shingle roof; built-in tiled baths; Mahan & Broadwell, Archts.; R. M. Morris, Contr.; construction started.

Tenn., Memphis—T. C. Robertson will erect English residence, Jackson Ave. and McLean Blvd.; rough stone, stucco and half timber; wood shingle roof; Mahan & Broadwell, Archts.; R. M. Morris, Contr.; construction begun.

Tenn., Memphis—Sam A. Thompson will erect English type residence, Jackson Ave.

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and McLean Blvd.; rough stone, stucco and half timber; wood shingle roof; Mahan & Broadwell, Archts.; R. M. Morris, Contr.; construction begun.

Tex., Austin.—T. H. Shelby will erect \$10,000 residence, Aldredge Pl.; 2 stories; stucco; H. L. Thomas, Archt., Littlefield Bldg.; A. W. Thielepape, Contr., 111 E. Live Oak St.

Tex., Harlingen.—J. M. L. West, Houston, has contract to erect \$20,200 residence; 2 stories; brick veneer; oak floors; reinforced concrete foundation; copper shingle roof; Jones & Tabor, Archts., 608-09 Binz Bldg., Barber Plumbing Co., San Jacinto and Walker Sts., gravity system heat; Jacobs Bros., 1010 Texas Ave., electrical work; all Houston.

Tex., San Antonio.—K. G. Granberg has contract to erect \$18,000 residence, E. Mulberry St.; 2 stories; brick, tile and stucco; Chas. T. Boelhauwe, Archt., City National Bank Bldg.

Tex., San Antonio.—James Aiken has contract, on cost plus basis, to erect residence for Mrs. G. A. Stowers on G. A. Stowers Ranch, Kerr County; 2 stories; stone and concrete; ground floor 33 x 33 ft., with wing 30 x 30 ft.; upper floor 30 x 35 ft.; composition roof; plastered walls; 3 baths; 2 sleeping porches; about \$20,000; C. V. Seutter, Archt.

Tex., San Antonio.—E. J. Lane has contract to erect Fitzgerald residence; C. V. Seutter, Archt.

W. Va., Welch.—Samuel Solins will erect 16 bungalow-type and 2-frame dwellings, Beech St., Woodmont addition; Chas. Smithy, Contr.

Hospitals Sanitariums, Etc.

Ala., Tuscaloosa.—Alabama Insane Hospital will erect psychopathic ward at Bryce Hospital; 2 stories; 100 x 50 ft.; concrete, hardwood and linoleum floors; concrete and stone foundation; built-up roof; hollow fireproof and interior tile; metal doors;

steel sash and trim; D. O. Whilden, Archt., Title Guarantee Bldg.; Kershaw Contracting Co., contr. at \$151,103; both Birmingham. (Lately noted.)

Hotels.

Ark., El Dorado.—Dr. J. G. Mitchell will erect \$49,200 hotel; 30.6 x 100 ft. and 90 x 100 ft.; 2 and 3 stories; built-up asphalt and felt roof; concrete and wood floors; concrete foundations; metal doors; steel sash and trim; wire glass; ventilators; metal ceilings; Jas. H. Bliss & Son, Archts., A. O. U. W. Bldg., Little Rock; Blythe & Duerson, Contrs., Box 22, El Dorado. (Lately noted.)

S. C., Laurens.—Watts Cotton Mills Co., Geo. M. Wright, Prest., will erect 16-room hotel and twelve 4-room cottages; J. E. Sirrine, Archt., Greenville; J. R. Brownlee, Contr., Laurens. (Lately noted.)

Schools.

La., Baton Rouge.—Louisiana State University will erect laboratory building, tunnel, reservoir, laundry and residence; Theo. C. Link, Archt., Box 587, Baton Rouge; Caldwell Bros., New Orleans, contr. at \$167,432; Preston Brasher, Alexandria, plumbing; concrete floors and foundation; tile and asbestos shingle roof.

Md., Baltimore.—Board of Awards, Mayor Wm. F. Broening, Prest., will erect Forest Park Senior-Junior High School, Hawthorne and Clarendon Aves.; U shape; main building 373 ft. long; longest wing 164 ft.; 4 stories; wing in rear for gymnasium, power house and lunchroom, 113 x 165 ft.; auditorium wing to seat 1800; brick; reinforced concrete columns and floors; wood and terrazzo floors; combination of hot air and direct radiation heat; 32 classrooms, 8 laboratories, library, 3 study halls, special rooms for book-keeping and domestic science departments, industrial arts building, 93 x 275 ft.; 1 story; factory construction; lighted by series of skylights in roof; Parker, Thomas & Rice, Archts., Union Trust Bldg.; J. Henry Miller,

Inc., Eutaw and Franklin Sts., contr. at \$1,124,200. (Lately noted.)

S. C., Greenville.—County Board of Education will erect \$23,000 school on Augusta Rd., first unit of \$60,000 structure; 100 ft. frontage; 6 classrooms and utility classrooms in basement; brick; Beacham & LeGrand, Archts.; J. R. Owen, Contr. (Lately noted.)

Tex., Lockhart.—School Board, A. D. Mebane, Prest., will erect \$85,400 high school; 2 stories; 206x60 ft.; fireproof; brick and concrete floors and foundation; hollow fireproof tile; metal ceilings; C. H. Page & Bro., Archts.; Henry E. Wattinger, Contr., both Austin. (Lately noted.)

Tex., Lyford.—School Board will erect \$35,000 building; brick and stucco; Smith & Kelly, Contrs., San Antonio.

Stores.

Ga., Savannah.—S. H. Kress & Co., New York, will erect 2-story and basement building, Barnard and Broughton Sts.; 60 ft. frontage; marble front; Ebenezer Morgan, Contr., Savannah; Chas. Bleakley, Supt. of Constr. for Kress company. (Lately noted.)

La., Baton Rouge.—T. Duggan Estate will erect 2 brick and frame buildings; 64x128 ft. and 32x125 ft.; Emile Well, Archt., Whitney Central Bldg., New Orleans; Knapp & East, Lake Charles, contr. at \$75,000.

Va., Bristol.—Joe Struss will erect 2 stores on State St.; 22x75 ft.; 1 story; terra cotta fronts; T. G. Martin, Contr.

Warehouses.

Fla., Ybor City.—D. H. McMichael will erect \$10,000 warehouse; sheet metal; Frank J. Winn, Jr., Archt.; J. R. Sperling, Contr., both Tampa.

N. C., Biltmore.—Walter P. Taylor, Prest., Citizens Lumber Co., will erect 7 one-room warehouses on Carolina La.; L. L. Merchant, Contr., Asheville. (Lately incorrectly noted to erect residence).

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Auto Repair Shop Equipment.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Jan. 29 to furnish one air compressor, motor driven, air hose and chucks; delivery Naval Operating base, Hampton Roads, Va., packed for over sea shipment, marked U. S. M. C., Port au Prince, Haiti. One air compressor, overhaul stand for Ford motor, motor lifting hook, electric hand drill, post drill, electric grinder, cold chisels, centre punches, taper reamers, valve tools, calipers, repairman's creepers, garage lamps, funnels, pliers, coil springs, gasoline hose, solder, etc.; delivery to Naval Operating Base, Hampton Roads, Va., packed for over sea shipment, marked Regimental Quartermaster, 2nd. Regiment, U. S. M. C., Cape Haitien, Haiti; Sch. 251.

Bakers' Machinery.—W. H. Ingram, Ingram's Sanitary Bakery, Opelika, Ala.—Bakers machinery to cost about \$10,000.

Barges.—U. S. Engr. Office, Huntington, W. Va.—Bids until Feb. 20 to construct and deliver three 80x26x5-ft. steel barges.

Belting.—Stonewall Ice Co., 1500 Buncomb St., Greenville, S. C.—Prices on 75 ft. of 14-in. double waterproof belting, 32 to 33 oz.

Boiler.—Robert P. Kehoe, 7 East 42nd St., New York—Second-hand 72-in. x 16-ft. HRT boiler with about 86 3½-in. tubes for 125 lb. pressure complete with grates and front.

Boilers.—See Mining (Coal) Equipment.

Bridge Construction.—Transylvania County Road Comms., Chas. E. Orr, Secy., Brevard, N. C.—Bids until Feb. 12 for reinforced concrete bridge over French Broad River at Penrose, N. C.; plans, etc. on file.

Bridge Construction.—State Highway Comsn., H. G. Shirley, Chrmn., Richmond, Va.—Bids until Feb. 14 for 5 concrete and steel bridge projects as follows: 48-C, Route 14, Bedford and Amherst Counties, 3 bridges over Hunting, Battery and Peters Creeks, 190-ft. total length, 66,330 lbs. reinforcing steel; 186-B, Route 12, Pittsylvania County, over Sandy River near Danville, 22,610 lbs. reinforcing steel; S 225 B, Route 1, over Spotylvania Power Co.'s Canal, at Falmouth, Va., 24,700 lbs. reinforcing steel. plans etc., on file and from following Dist. Engrs.; 48 C and 186 B, Lynchburg, S 225 B, Fredericksburg.

Bridge Construction.—State Highway Comsn., Raleigh, N. C.—Bids until Feb. 1 for overhead crossing in Wilson County, Proj. 291-B; plans, etc., on file and from Dist. Engrs.

Bridge Construction.—Dept. of Public Finances, R. M. Murphy, Commr., New Orleans, La.—Bids until Feb. 14 to erect Scherzer Rolling Lift Bridge over New Orleans Navigation Canal on axis of Broad St.; plans, etc., on file.

Bridge Construction.—City of Seguin, Tex.—Bids until Feb. 5 for reinforced concrete

bridge over Walnut Branch to Court St.; plans, etc., from Terrell Bartlett, Engr., Calcasieu Bldg., San Antonio Tex. (Lately noted.)

Bridge Construction.—Hinds County Supers., W. S. Wells, Clk., Jackson, Miss.—Bids until Feb. 5 to build wooden bridge across Turkey Creek on Halifax road; plans, etc. on file.

Calcium Chloride.—Stonewall Ice Co., 1500 Buncomb St., Greenville S. C.—Prices on Calcium Chloride in car lots.

Cars (Flat).—Pennsylvania Equipment Co., (Mchy. Dealers) Norwood Station, Pa.—25 to 50 flat cars, capacity 80,000 to 100,000 lbs., 41 to 42-ft. bodies, either new or second-hand, cars must have steel through center sills and bolsters or full steel underframes delivery for Pacific coast by Mch. 15.

Castings, etc.—U. S. Engr. Office, Florence, Ala.—Bids until Feb. 21 to furnish castings and other parts for the regulating gates of Wilson Dam.

Compressor (Air).—Robert P. Kehoe, 7 E. 42nd St., New York—Belt driven air compressor to deliver about 1500 CFM at 40-in. pressure.

Crane.—Robert P. Kehoe, 7 East 42nd St., New York—100-ton wrecking crane, complete.

Crane (Electric).—Carolina Steel & Iron Co., Greensboro, N. C.—Prices on 50-ft. electric crane for loading and unloading, 10-ton capacity.

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Crosses.—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—Two 16-in. std. fig. crosses.

Crushing (Orange) Machine.—Justin M. Reese, 38 E. North Ave., Atlanta, Ga.—To correspond with mfrs. of orange crushing machine.

Culvert Construction.—Warren County Highway Commrs., Geo. Williamson, Secy., Vicksburg, Miss.—Bids until Feb. 6 to construct several creosoted timber culverts on North Scenic Highway between Haynes Bluff and Yazoo County line; 40,400 ft. B. M. creosoted lumber, 2500 lin. ft. creosote piling; plans, etc., with Chancery Clk., and County Engr.

Culvert Construction.—Columbus County Commrs., A. W. Baldwin, Clk., Whiteville, N. C.—Bids until Feb. 5 to construct 2 concrete box culverts on Whiteville & Tabor road; plans, etc. from Register of Deeds of Columbus County, Whiteville, N. C.

Curbing.—City of Asheville, N. C., J. H. Schoepf, Purchasing Agent.—Bids until Feb. 5 on 14,000-ft. straight curbing and 300 ft. of curved curbing, 4 in. wide and 18 in. deep, B. M. Lee, City Engr.

Cutting (Pneumatic) and Lettering Outfits.—Monticello Stone & Material Co., Monticello, Miss.—Prices on small outfits for pneumatic cutting and lettering of marble.

Desks.—Dacotah Cotton Mills, Inc., Lexington, N. C.—Desire correspondence from manufacturers of desks who can match up finish on woodwork they will submit.

Dryer.—Hagerstown Lime & Chemical Co., J. S. Myers, Prest., Hagerstown, Md.—Prices on good used dryer, rotary direct 6x36x or 4x30.

Dryers (Sand).—Southern Silica Mining & Mfg. Co., 1643 Main St., Columbia, S. C.—Prices and catalogs on sand dryers, daily capacity about 150 tons.

Electric Plant, etc.—City of Whiteville, N. C., Richard M. Lewis, Mayor.—Bids until Feb. 9 to furnish material and equipment for electric light plant operated by steam, Diesel or semi-Diesel engines; prices f. o. b. Whiteville. For steam plant: one 90 and one 150 K. V. A. generator for direct connection to unfiow engine, excitor for above and belt; 3-panel switchboard; two unfiow engines, one for each of above generators; two 100 h. p. high pressure boilers; one feed water heater; one feed water pump and 500 G. P. M. steam fire pump.

For Diesel engine plant: two 125 K. V. A. generator for direct connection to Diesel engine; two exciters for above and belts; 1 switchboard; 2 Diesel engines for above generators and one 15,000 gals. oil storage tank. For semi-Diesel engine plant: two 125 K. V. A. generators for direct connection to Diesel engine; 2 exciters for above and belts; one switchboard; 2 semi-Diesel engine for above generator and one 15,000-gal. oil storage tank; J. B. McCrary Co., Engrs., Atlanta, Ga.

Emery Mill.—Maryland Mineral Co., R. L. Lovell, Prest., Texas, Md.—To purchase Buhr or rock emery mill, 36- or 42-in.; good condition.

Elevator (Electric).—W. S. Bradley, 117 W. Washington St., Greenville, S. C.—Electric elevator for warehouse building.

Elevators (Electric).—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until Feb. 14 to install complete 3 full magnet control electric elevators and one electric food lift for U. S. Veterans Hospital, Chelsea, N. Y.

Engine (Gasoline).—Oliver Carter, (Mchy. Dealer) Wilmington, N. C.—Prices on 35

H. P. new or used, heavy duty gasoline engine suitable for a boat.

Engine.—See Generator Set (Electric.)

Engine.—See Hoisting Equipment.

Engine (Hoisting).—See Mining (Coal) Equipment.

Engine (Steam).—Gilbert Calhoun, Dry Run, W. Va.—Used traction steam engine 14 to 20 H. P.; state lowest price, condition and make.

Flag Pole.—Joseph Stolz & Son, Inc., Commerce Ave., High Bridge Station, New York City.—Prices to furnish and erect in center of roof 50 ft. flag pole above roof level, of continuous taper welded steel plate construction, 9 5/8-in. at butt tapering to 5 1/2-in. at top; pole equipped with ball bearing revolving 2 bronze sheave, galvanized iron truck of steel king pin, 12-in.-20oz. copper ball finial on brass tube, gilt in 4x leaf gold, double set of 3/4-in. Manilla bolt rope half-yard, cleats attached and steel flash collar; poles braced with 2 adjustable tubular braces bolted to shrunk brace collar on pole and to steel roof framing; pole painted as desired; submit drawings in duplicate, alternate quotations accepted for delivery to job or f. o. b. cars Newark, N. J.

Fountain Pens, etc.—Pen-O-Pencil Co., 527 5th Ave., New York—To correspond with mfrs. of fountain pens, pencils, especially plunger type pens.

Generator (Electric).—U. S. Engr. Office, Florence, Ala.—Bids until Feb. 12 to furnish and deliver one electric generator of 937.5 K. V. A. capacity with direct connected exciter.

Generator Set.—Robert P. Kehoe, 7 East 42nd St., New York—100 K. W. direct-current 110-125-volt engine generator set.

Generator Set (Electric).—Ryan Engineering Co., 20 Arcade Bldg., Columbia, S. C.—To purchase one used direct connected engine and generator set of approx. 150 K. V. A., 2306 volts, 3 phase, 60 cycle.

Gravel.—Harris County, H. L. Washburn, County Auditor, Houston, Tex.—Bids until Jan. 29 for 1000 tons gravel to resurface 2 roads.

Gravel.—Louisiana Highway Comsn., Raymond Bldg., Baton Rouge, La.—Bids until Feb. 6 for 10,000 cu. yds. washed gravel or sand clay gravel, containing not less than 40 per cent stone, for 10 mi. road building in Lincoln Parish; J. M. Fourmy, State Highway Engr.

Heading Sawing Machines.—H. W. Doney, Milstead, Ala.—To purchase two good second-hand heading sawing machines, either Trevor Pendelous or Gerlach with about a 60-in. saw.

Hoisting Equipment.—Sabel & Rothschild (Mchy. Dealers) 824 W. Bay St., Jacksonville, Fla.—To purchase two 7x10 hoisting engine, also two 8x10 double drum, double cylinder, complete, in good condition.

Hoist (Mine).—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—Steam double cylinder mine hoist, reversible double friction drum geared type preferred, approx. 30 H. P. complete with boiler either vertical or locomotive type.

Hose (Fire).—City Comsn., W. A. Evans, Chrmn., Jacksonville, Fla.—Bids until Jan. 25 to furnish f. o. b. Jacksonville, 2000 ft. of 2 1/2-in. rubber lined cotton fire hose for the Fire Dept.; T. W. Haney, Chief, Fire Dept.

Hosiery Mill Machinery.—Chester Tubbs, Atty., Haleyville, Ala.—To correspond with mfrs. of hosiery mill mchy.

Ice Plant, etc.—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until Feb. 14 for ice making and refrigerating plant at U. S. Veterans Hospital, Chelsea, N. Y.

Ice Plant.—Chester Wainwright, Charlestown, W. Va.—To purchase second-hand ice making machine, producing 100 lb. cakes.

Kettles (Copper), etc.—The Gas Engine & Electric Co., Inc., (Mchy. Dealers) 280 Meeting St., Charleston, S. C.—To purchase for re-sale several steam jacketed copper kettles and a processing retort suitable for use in canning and preserving plant; correspond with mfrs.

Kiln Equipment.—Mason Yeager, Secy., Yeager Mfg. Co., Box 638, Hickory, N. C.—Prices on kiln equipment for furniture plant.

Lathe.—L. F. Seyfert's Sons (Mchy. Dealers) 437 N. 3rd. St., Philadelphia, Pa.—Lathe to be used for turning stone, 60-in. swing over tool post, 16 ft. between centers; maximum size 112 in. swing over tool post, 36 ft. between centers.

Laundry Machinery.—C. J. Ryan, City Mgr., Sanford, Fla.—To correspond with mfrs. of or dealers in laundry mchy.; prefer those having Southern representatives.

Light and Water Plant.—City of Spearman, Texas, H. E. James, Mayor.—Bids until Jan. 31 for material for construction of light and water plant, water works to cost \$43,000, light plant \$12,000; install complete electric equipment; 50 h. p. fuel engine; pumping engine for two wells, 75,000 gal. elevated tank, 140 ft. to maximum water line; specifications, etc. from Gantt-Baker Engineering Co., Oklahoma City, Okla.

Machine Shop Equipment.—Brooks Burner Stove Co., Box 186, Ardmore, Okla.—Prices on machine shop equipment including: Sheet metal square shears, 36 in. long for No. 18 Ga. and lighter male and female punches for Swann foot presses, threading machines to thread No. 20 Ga. O. D. brass tubing also five-eighths in. O. D. 18 Ga. brass tubing, fine-tooth circular saws for sawing brass tubing about 6-in. diam. line shaft hangers, iron pulleys not over 16-in. diam., leather belting, counter shafts tight and loose pulleys, small three-jaw chucks, sheet iron bar folders, 30 to 36 in. long, small foot presses.

Mattress Machinery.—G. M. McWilliams, V. P., Citizens' Bank, Hattiesburg, Miss.—To correspond with mfrs. of mattress factory equipment including gin and felting mchy.

Mechanical Equipment.—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until Feb. 7 for mechanical equipment (exclusive of outside services, elevators, lighting fixtures and certain equipment) of the Administration Bldg., mess hall and kitchen bldg. at Key West Veterans' Hospital, Chelsea, N. Y.

Mining (Coal) Equipment.—C. W. Osborn, Box 1404, Dallas, Tex.—Prices on mine cars, hoisting engine and small boilers.

Miscellaneous Supplies.—Panama Canal, A. L. Flint, General Purchasing officer, Washington, D. C.—Bids until Feb. 9 to furnish: Steel; black iron; cast-steel bearings; water meters; steel bolts and rivets; nails; brass nuts; sheet copper and brass; marine boiler furnaces; steel drums; aluminum ware; steel cans; brass valves; chain hoists; laundry soap; artificial leather; brown print paper; blue print cloth; tag board, cypress lumber, etc. Blank forms and proposals (Circular 1511) on application to offices of Panama Canal; Asst. Purchasing Agents at 24 State St., New York, 611 Gravier St., New Orleans, Fort Mason, California, Calif.; also U. S. Engr. office throughout country.

Motor.—Anderson Gas and Utility Co., Anderson, S. C.—20 to 25 h. p., 220 volt motor.

Motors.—Brooks Burner Stove Co., Box 186, Ardmore, Okla.—Prices on electric motors from one-sixteenth to 5 h. p.

Motor.—Reed Furniture Mfg. Co., Little

River, Fla.—Prices on 5 h. p. single phase, 210-volt motor.

Motors.—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—50 to 100 H.P., 3 phase, 60 cycle, 220, 440, or 2400 volt motors, complete with starting equipment.

Motors.—Mason Yeager, Secy. Yeager Mfg. Co., Box 638, Hickory, N. C.—Prices on motors for furniture plant.

Moulds (Concrete Drain Pipe).—Hiddenite Crushed Stone Co., Inc., Hiddenite, N. C.—To purchase moulds and other necessary equipment for making concrete drain pipe, 12 to 48-in.

Oil and Extracts Machinery.—C. S. Burgess, 428 Cornelia St., South Jacksonville, Fla.—To purchase light mchy. for the mfr. of oil and extracts from citrus fruits.

Overall Machinery.—Chester Tubbs, Atty., Haleyville, Ala.—To correspond with mfrs. of overall mchy.

Paper Weights.—H. M. Hargrove, Prest., San Jacinto Life Insurance Co., Beaumont, Tex.—To correspond with mfrs. of paper weights, reproducing cuts of buildings, etc.

Paving.—City Comsn., Chas. H. Brown, Mayor-Commr., Tampa, Fla.—Bids until Jan. 30 to grade, pave and curb Twiggs St. from Drew to Maxwell St.; 1000 sq. yds. vitrified brick paving; 300 lin. ft. reset curbing and 50 lin. ft. granite curb; plans, etc. from City Engr.

Paving.—City of Waurika, Okla.—Bids until Jan. 30 to pave and improve East D. Ave., plain concrete; plans, etc., from City Clk., or Benham Engineering Co., Engr., 512 Gumbel Bldg., Kansas City, Mo., and Insurance Bldg., Oklahoma City, Okla.

Paving.—E. E. Eanes, Mayor, Emporia, Va.—Bids until Jan. 30 to grade, curb, gutter and install storm drains on 20,000 sq. yds. pavement; sheet asphalt and bituminous concrete, or Warrenite-bitulithic, etc.; plans, etc., from R. D. Gladding, Engr., Wilson, N. C. (Lately noted.)

Paving.—C. C. Bell, Mayor, West Monroe, La.—Bids opened Jan. 20 to grade and build 5 mi. concrete sidewalks; plans, etc. on file.

Paving.—C. A. Vaughn, Mayor, Umatilla, Fla.—Bids until Feb. 20 for 45,000 sq. yds. street paving with necessary drainage, curb and gutter; plans, etc. from J. A. Morrell, Clk., and H. S. Jaudon Engineering Co., Engr., Elberton, Ga.

Paving (Asphalt).—John Tucker Co., Orlando, Fla.—Names and addresses large asphalt paving companies.

Pipe.—Stonewall Ice Co., 1500 Buncomb St., Greenville, S. C.—Prices on 2-in. ammonia pipe, for storage plant.

Pipe.—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—Two pieces 9 to 10-in. extra heavy black pipe, 20 to 25-ft. long.

Pipe (Cast Iron).—Ludlow Engineers, Winston Salem, N. C.—Bids until Jan. 26 to furnish 20,000 ft. of cast iron pipe, Class A to Class E to the town of Roxboro, N. C. for development of new source water supply.

Pipe (Water).—Lynchburg Electric Light & Power Co., Lew Motlow, owner, Lynchburg, Tenn.—To purchase supply of water pipe (black), ¾-in. to 3-in. diam.

Pipe (Wooden).—Star Salt Corp., Lafayette, La.—To purchase 5 mi. of 4-in. wooden pipe line to carry water; correspond with mfrs.

Piano.—O. R. Coffield, Ellenboro, N. C.—To purchase piano for school.

Press (Newspaper).—P. N. Simmons, Prest. Simmons Printing & Publishing Co., Sardis, Miss.—To purchase good second-hand news-

paper press to print 6 columns to 4 pages at one time.

Presses.—See Machine Shop Equipment.

Pump.—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—Two plunger type vertical triplex brass fitted pumps for handling pump stock; capacity 50 tons; 6% consistency per 24 hrs.

Pump (Electric).—Guyan Machine Shops, (Mchy. Dealers) Logan, W. Va.—Electric pump, 4-in suction, 3-in. discharge, about 175 gal. per min. against 50 lb. pressure; driven with A. C. 220 volt, 3 phase, 60 cyc. 13 motor, or without motor.

Radiators.—G. W. Simmons, 492 Vance Ave., Memphis, Tenn.—To purchase number of hot water radiators with gas attachments for heating the water to circulate through each individual radiator.

Reservoir.—City of Martinsburg, W. Va., John H. Zirkle, Recorder—Bids until Feb. 20 for construction of concrete reservoir and laying of 1750 ft. of 20-in. cast iron pipe at city water plant; plans, etc., from office of city engineer.

Road Construction.—Harris County, H. L. Washburn, County Auditor, Houston, Tex.—Bids until Jan. 29 to resurface 2 roads as follows: Main St. and Bellaire Blvd.

Road Construction.—Louisiana Highway Comsn., Raymond Bldg., Baton Rouge, La.—Bids until Feb. 6 to grade, construct drainage structures and gravel surface 10 mi. Sec. A, Ruston-Farmville Highway, Lincoln Parish; plans, etc. on file; J. M. Fourmy, State Highway Engr.

Road Construction.—Briscoe County Comms. Court, T. L. Anderson, County Clk., Silverton, Tex.—Bids until Jan. 31 to grade and construct drainage structures on 8.5 mi. Silverton-Memphis road in Road Dist. No. 8; plans etc. from Midwest Engineering Co., Engr., Silverton.

Road Construction.—State Highway Comsn., Raleigh, N. C.—Bids until Feb. 1 to construct drainage structures, etc., on 19 road projects as follows: 107, Bertie County, 10.43 mi.; 147, Hertford County, 17.36 mi.; 363, Onslow County, 15.22 mi.; 391-B, Robeson County, 1.10 mi.; 403, Chatham County, 7.01 mi.; 486, Wake County, 9.04 mi.; 512, Caswell County, 11.67 mi.; 555, Montgomery County, 20.55 mi.; 752, Stokes County, 9.67 mi.; 815, Cleveland County, 11.63 mi.; all topsoil, sand clay or gravel; 275, Sampson County, 13.80 mi.; 991, Transylvania County, 7.31 mi.; all macadam or sand asphalt; 155-B, Martin-Pitt Counties, 19.31 mi.; 163, Nash County, 14.96 mi.; 273, Sampson County, 2.44 mi.; 429, Granville County, 6.94 mi.; 743, Forsyth County, 11.35 mi.; all hard surface; plans, etc., on file or from Dist. Engrs. (Lately noted.)

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids until Feb. 2 to grade and construct drainage structures on 16 rds. as follows: Caldwell County, 2 sections concrete or asphalt concrete surfacing on road from Hamilton, West, State Proj., Route 8, Sections 12 and 13, N. R. Sack, Div. Engr., Ballinger Bldg., St. Joseph, Mo.; Jackson County, four sections concrete brick rock asphalt or asphalt concrete on road from Kansas City east on Sni-a-bar, State Proj., Route 2, Sections, 3, 4, 5, and 6, A. C. Lingley, Div. Engr., Alliance Bldg., Kansas City, Mo.; Jasper County, road east of Carthage, State Proj., Route 14, Sec. 3, Ray Dunlap, Div. Engr., Frisco Bldg., Joplin, Mo.; Laclede County road northwest of Lebanon, State Proj., Route 14, Sec. 36, H. P. Moberly, Div. Engr., Woodruff Bldg., Springfield, Mo.; Lafayette County road west of Odessa, State Proj. 2, Sec. 8, A. C. Lingley,

Div. Engr.; Lawrence County, 4 sections, road from Jasper County line, east, state Proj., Route 14, sections, 5, 6, 7, 8, Ray Dunlap, Div. Engr.; Phelps County, gravel surface road from Rolla southward, State Proj., Route 7, Sec. 65, H. P. Moberly, Div. Engr.; St. Louis County, 2 sections, concrete brick and rock asphalt surface road west of Manchester, State Proj., Route 14, Sections 76 and 77, S. M. Rudder, Div. Engr., Bristol Bldg. Webster Groves, Mo.

Road Construction.—State Highway Comsn., H. G. Shirley, Chrmn., Richmond, Va.—Bids until Feb. 14 for 14 road projects as follows: 48-C, Route 14, Bedford and Amherst Counties, 5.2 mi. 16-ft. bituminous macadam roadway from Big Island to Snowden, 40,500 lbs. reinforcing steel; 107, Route 23, Giles County, 2.8 mi. 12-ft. surface treated macadam roadway from Pearisburg toward Ripplemead, 2269 lbs. reinforcing steel; 136-A, Route 17, Greene County, 2.75 mi. bituminous macadam roadway from Orange County line west; 135-C, Route 17, Orange County, .8 mi. 12-ft. bituminous macadam road from Barboursville to Green County line, 5633 sq. yds. bituminous macadam; F-178, Route 1, Mecklenburg County, 6.13-mi. 16-ft. concrete road from Clarksville to North Carolina line, 9100 lbs. reinforcing steel; 141-B, Route 18, Campbell County, 7.52-mi. soil roadway from 1.12 mi. south of Brookneal to Volens, 20,823 lbs. reinforcing steel; S-158, Route 1, Mecklenburg County, .93 mi. 50 and 18-ft. concrete pavement on streets in Clarksville, 5000 lin. ft. combination curb and gutter, 2 catch basins and drop inlets; 192-C, Route 3, Rockbridge and Augusta Counties, 11.07 mi. bituminous macadam roadway from Station 437 plus 00 to Fairfield, 17,500 lbs. reinforcing steel; F 221, Route 4, Accomac County, 6-mi. 18-ft. concrete roadway from Tasley to point 6 mi. south; F 246, Route 12 Y, Southampton County, 7.86-mi. 18-ft. concrete roadway from Franklin to North Carolina line, 4071 lbs. reinforcing steel; S 268 A and B, Accomac County, 3.02-mi. 18-ft. concrete roadway from Tasley to Onancock, 3388 lbs. reinforcing steel; 225; 225 B, Route 1, Spotsylvania County, .65-mi. concrete roadway from Rappahannock River to Fredericksburg; S 256, Route 11, Tazewell County, 1.98 mi. bituminous macadam roadway from Burkes Siding to Tazewell; alternate bids for surface treated macadam; plans, etc., on file and from following Dist. Engrs.: Proj. 48-C, 141 B, and 186, Lynchburg, F-107, Roanoke, F-136 A and F-135 C, Culpepper, F-178 and S-158, Richmond, 192 C, Staunton, F-221 A, F-246 A, and S-268, Suffolk, F-225 B, Fredericksburg, S-256, Bristol.

Road Construction.—State Highway Dept., Oklahoma City, Okla.—Bids until Jan. 31 to construct drainage structures and gravel surface 3 sections roads as follows: 2.272 mi. from Warner to beginning of F. A. Proj. No. 97-A, Muskogee County, F. A. Proj. 96, 23,800 sq. yds. pavement; Sec. A. 17.435 mi. from end of F. A. Proj. No. 96 to bridge over South Canadian River (F. A. Proj. No. 51-C); Sec. B, from Sec. F-F, F. A. Proj. No. 18 to bridge over Arkansas River (F. A. Proj. No. 51-B) and approach on east side, Muskogee County, F. A. Proj. No. 97; 184,073 sq. yds. pavement; plans, etc. from Max L. Cunningham, State Engr., and County Clk., Muskogee, Okla.

Road Construction.—North Carolina State Highway Comsn., Raleigh, N. C.—Bids until Feb. 1 for 7.34 mi. S. H. in Rowan County between Salisbury and Barber, route No. 10; 77,180 sq. yds. plain or reinforced concrete pavement, or concrete base and header course, with 68,610 sq. yds. sheet or rock asphalt or coarse or fine structures; 115,500

lbs. reinforcing steel; plans, etc. on file, or from Dist. Engr., Charlotte, N. C.

Road and Bridge Construction.—State Highway Comsn., Montgomery, Ala.—Bids until Feb. 19 for 20.164 mi. road between Centerville and Woodstock, Bibb County; 48,000 cu. yds. gravel and chert surfacing, 71,889 lbs. reinforcing steel in culverts; also build bridge, 131,696 cu. yds. concrete, 26,360 lbs. structural and 182,994 lbs. reinforcing steel; plans, etc., from W. S. Keller, State Highway Engr., Montgomery, and Div. Engr., Selma, Ala.

Road Machinery.—Brevard County Comrs., N. T. Froscher, Clk., Titusville, Fla.—Bids until Feb. 6 to furnish new or second-hand road machinery as follows: One 10 ton roller with scarifier attachment; road grader with 9 ft. blade; neater and pressure distributor mounted or to be mounted on motor truck or trailer, capacity 600 gals.; bids including freight charges on each article delivered in Cocoa, Fla.; A. F. Harley, Engr., Cocoa.

Road Maintenance.—Hinds County Supvrs., W. S. Wells, Clk., Jackson, Miss.—Bids until Feb. 5 for maintenance of 5 roads as follows: In 3 and 4 Supvrs.' Dists., known as J. A. and J. R. Strong contract, and G. H. Pickett contract; in First Supvrs.' Dist., Middleton contract; 2 mi. gravel roads, J. T. Ratcliffe contract; 22 mi. Fourth Supvrs.' Dist., near Learned, Miss.; plans, etc. on file.

Roofing Materials, etc.—Lone Star Roofing Co., Baker and Pine Sts., Houston, Tex.—To correspond with mfrs. of roofing material and equipment.

Sand.—Port Comrs., Suite 200 New Orleans Court Bldg., New Orleans, La.—Bids until Feb. 1 to deliver between 50,000 and 70,000 cu. yds. of lake sand on barges at site of the proposed Claiborne Ave. Landing on the Navigation canal; plans with Purchasing Agt., 1 Canal St.

Sander.—S. Fraser Lumber Co., Spartanburg, S. C.—To purchase used arm sander for shop use, good condition.

Sash and Frame (Metal).—Brooks Burner Stove Co., Box 186, Ardmore, Okla.—Data and price on metal window sash and frames; correspond with mfrs.

Sanitary Sewers.—Board of Awards, Richard Gwinn, Register, City Hall, Baltimore, Md.—Bids until Jan. 31 to construct sanitary sewers in Dist. G-14, Contract 196; 22,491 lin. ft. of 8-, 10-, 12-, and 18-in. vitrified pipe, sewer; 12,984 lin. ft. of house connections, 106 manholes and other miscellaneous work.

Dist. 11, Contract 197; 14,162 lin. ft. of 8-, 10-, 12-, and 24-in. vitrified pipe, sewer, 5686 lin. ft. of house connections, 88 manholes and other miscellaneous work incidental to the above; plans with A. E. Christhill, Highway Engr.

Saw (Band).—See Woodworking Machinery.

Saws (Circular).—See Machine Shop Equipment.

Saw (Power).—Joseph Stolz & Son, Inc., Commerce Ave., Highbridge Station, New York City.—Circular power saw for cutting steel and iron; state prices for re-sale, description, etc.

Saw (Self Feed).—Mason Yeager, Secy., Yeager Mfg. Co., Box 638, Hickory, N. C.—To purchase self feed saw.

Sewers.—Grady Mullennix, Town Clerk, Homer, La.—Bids until Jan. 26 for constructing sanitary sewers and disposal plants for Town of Homer; approx. cost \$80,000; plans on file with J. W. Billingsly, Consol.

Engr., Interstate Bank Bldg., New Orleans, La.

Shellac.—J. D. Hunter, Box 959, Charlotte, N. C.—So correspond with mfrs. of shellac.

Shovel (Steam).—Pennsylvania Equipment Co. (Mchy. Dealers) Norwood Station, Pa.—To purchase 2½ yd. steam shovel for Tennessee delivery.

Shovel (Steam).—I. O. Drewry, Jasper, Ala.—To purchase a Marion 300 stripping steam shovel, second-hand.

Spray Machine.—Mason Yeager, Secy., Yeager Mfg. Co., Box 638, Hickory, N. C.—Prices on spray machine for finishing room of a furniture plant.

Structural Steel.—Guyan Machine Shops, (Mchy. Dealers) Logan, W. Va.—Structural steel, beams, channels, angles, plates, sheets and bars.

Surfacing (Granite) Machines.—Flat Rock Quarries, 1405 Citizens & Southern Bank Bldg., Atlanta, Ga.—Two granite surfacing machines.

Tanks.—U. S. Engr. Office, Florence, Ala.—Bids until Feb. 17 to furnish displacement tanks for the regulating gates of Wilson dam.

Tanks.—Wilson-Hock Co., (Mchy. Dealers) City Point, Va.—Tow 13 ft. 6-in. diam. x 13 ft. high cypress or yellow pine tanks.

Tanks.—Safety Button Co., Rock Hill, S. C.—To purchase 5 gal. plating glass tank.

Tank (Storage).—Robert P. Kehoe, 7 East 42nd St., New York.—10,000 gal. oil storage tank in good condition.

Threading Machines.—See Machine Shop Equipment.

Transformers.—Alex. M. Robinson (Mchy. Dealer) Georgetown, Ky.—Dealers prices on three transformers, 150 KVA, 23,000 volts, primary; used equipment.

Tubes and Tires.—Marine Corps, Quartermaster's Dept., Washington, D. C.—Bids until Jan. 29 to furnish 1350 pneumatic automobile tires; 200 solid tires; and 1350 inner tubes; delivery to U. S. Marine Corps, Philadelphia, Pa.; Sch. 252.

Tubing (Steel).—Jas. H. Berry, 328 Douthitt St., Greenville, S. C.—To correspond with mfrs. of steel tubing, approx. size from 2 to 6-in. diameter.

Vending Machine.—H. M. Hargrove, Prest., San Jacinto Life Insurance Co., Beaumont, Tex.—To correspond with mfrs. of vending machines, used in connection with field glasses on top of office building.

Watches (Stop) and Steel Plates.—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids until Jan. 30 to deliver stop watches and steel plates to the navy yard, Washington.

Water Works Extensions.—City of Plant City, Fla., W. H. Durrance, Clk. Board of Public Works—Bids until Feb. 2 for furnishing following material for installing extension of water works system, as follows: 9770 lin. ft. of 6-in. Bell and spigot cast iron pipe; 980 lin. ft. of 4-in. Bell and spigot cast iron pipe; 4970 lin. ft. of 1½-gal. pipe; 23 6-in. gates valves bronze fittings; two 4-in. gate valves, bronze fittings; 18 6-in. fire plugs, two 2½-in. hose connection; ten 6-in. Tees; two 4-in. Tees; two 6-in. crosses; one 4 x 6 increaser; 400 lbs. hemp; 9500 lbs. lead; state whether f.o.b. Plant City or place of shipment contemplated.

Water Works System.—City of Whiteville, N. C. Richard M. Lewis, Mayor—Bids until Feb. 9 to furnish material and equipment for water works systems; prices f.o.b. Whiteville.

One 500 G.M.P. centrifugal pump with base for direct connection to 60 H.P. motor;

one 500 G.P.M. centrifugal pump with base for direct connection to gas engine; one 200 G.P.M. centrifugal pump with base for direct connection to 20 H.P. motors; one 60 H.P. high voltage, high speed, slip ring motor; one 20 H.P. low voltage, high-speed motor; 7½ K.V.A. transformers, 2200-220; 1-gas engine; one 60,000-gal. tank on 75-ft. tower; 4632 ft. of 8-in. and 13,546 ft. of 6-in. B. and S. pipe, class B; necessary cast iron fittings; 13,600 ft. of 1½ in. of galvanized pipe; 38 standard fire hydrants; five 8-in. and thirteen 6-in. H. E. gate valves and boxes; twenty-two 1½-in. Sed. gate valves and boxes; 13,000 lbs. Virgin pig lead and 650 lbs. of water main jute; J. B. McCrary Co., Engrs., Atlanta, Ga.

Wheel Press.—Camp Mfg. Co., Franklin, Va.—To purchase 150 to 300 ton, 48-in. wheel press in good second-hand condition.

Woodworking Machinery.—Reed Furniture Mfg. Co., Little River, Fla.—Prices on 30-in. oscillating sanding machine; 24-in. planer; band saw; and 12-in. jointer.

Woodworking Machinery.—L. F. Seyfert's Sons, Inc., Philadelphia, Pa.—To purchase woodworking mchy., will buy entire plant or individual machines.

Financial News

New Financial Corporations.

Ala., Gadsden—Etowah Investment Co., incptd. with W. L. Smith, Prest.; Emily Smith, Vice Prest.; Mabel Smith, Secy.

Ark., Conway—The Farmers' Agricultural Co-Operative Banking Assn. of Conway, capital \$25,000, incptd. by C. M. Wertz, Charles Leinhardt, J. E. Reedy of Holland, and others.

Ark., Little Rock—Home Accident Insurance Co. of Arkansas, capital \$500,000, incptd. with A. B. Banks, Prest.; John R. Hampton, Vice-Prest.

Fla., Miami—Commercial Bank and Trust Co., capital \$300,000, incptd. with J. J. Noble, Prest.

Fla., West Palm Beach—Mortgage Securities Co., capital, \$100,000 incptd. with H. Phil Bryan, Prest.; J. Stockton Bryan, Vice-Prest.

Ky., Frankfort—The Henderson Sales Finance Co., capital \$25,000, incptd. by P. J. Lambert, Herbert L. King and B. W. Begley.

Ky., Frankfort—Capital Guarantee and Brokerage Co., capital \$20,000 incptd. by T. P. Rogers, E. R. Rogers, and Victor Banto.

Ky., Louisville—The Stephenson Brokerage Co. of Louisiana, capital \$10,000, incptd. with C. H. Stephenson, Edith L. Stephenson, and W. H. Kelly.

Mo., Kansas City—Charles D. Williams Insurance Agency Co., capital \$10,000, incptd. by C. D. Williams, Helen M. Williams, C. Whittaker.

Mo., Kansas City—J. R. Gant Mortgage Co., Commerce Trust Bldg., capital \$100,000, incptd. with J. C. Gant, Prest.

Mo., Kansas City—Securities Service Corporation, capital \$100,000, incptd. by C. D. Williams, C. Whittaker, Helen M. Williams, W. O. Norman.

Mo., St. Louis—Marvin Investment Co., capital \$10,000, incptd. by J. J. Yawitz, N. J. Ehrlich and L. Freund.

Mo., University City—Wedge Realty & Investment Co., incptd. by F. W. Rutzke, R. C. Rutzke, L. S. Munchweiler.

N. C., Gate City—The Textile Bank merged with the Atlantic Bank and Trust Co.

N. C., Winston Salem—Galloway-Jenkins Co. and Col. J. C. Bessent merged.

Okla., Checotah—The Guaranty State Bank of Checotah will merge with the Checotah National Bank; combined capital \$25,000.

Okla., Cordell—Cordell National Bank succeeds the Cordell State Bank.

Okla., Paden—The First National Bank and the Paden National Bank will consolidate as the First National Bank of Paden.

Tenn., Knoxville—Davis-Baird Co., capital \$15,000, inctpd. by G. C. Davis, C. O. Baird, Bruce Green and others.

Tenn., Memphis—The Commercial Trust & Savings Bank merged with the Bank of Commerce & Trust Co.

Tex., Dallas—American Trust Co., capital \$25,000, inctpd. by Carr P. Collins, G. A. Chatfield, H. W. Gee.

Tex., Dallas—Commercial State Bank, capital \$200,000, inctpd., George W. Riddle interested.

Va., Norfolk—Wilson and Johnson, Inc., capital \$25,000, inctpd. with W. Taylor Johnson, Prest., P. Turner Wilson, Secy.

W. Va., Clarksburg—Community Savings & Loan Co., capital \$100,000, inctpd. with C. W. Leggett, Prest.; E. W. James and Daniel Howard, Vice-Prests.

W. Va., Huntington—The Huntington Finance Co., capital \$125,000, inctpd. with E. A. F. Parsons, Prest.; T. J. Sayre, Vice-Prest.

New Securities.

Ala., Anniston—Paving—J. L. Wikle, Mayor, will issue \$100,000 bonds.

Ala., Athens—School—City Council sold \$20,000 bonds to Caldwell & Co. of Nashville. Address The Mayor.

Ala., Brewton—Indebtedness—Escambia County sold \$75,000, 5% bonds to Ward, Sterne & Co. of Birmingham. Address County Commrs.

Ala., Russellville—Water and Light—City. W. W. Ramsy, Mayor, will receive bids until Feb. 3 for \$24,000 bonds.

Ark., Mena—Road—Browne-Crummer Co., of Kansas City purchased the \$100,000 bond issue from Polk County Road Dist. No. 2. Address County Commrs.

Fla., Arcadia—Road—De Soto County sold \$165,000, 6%, \$1000 denom. bonds to J. C. Mayer & Co., Cincinnati, Ohio. Address County Commrs. (Lately noted.)

Fla., Bradentown—Municipal—City, L. L. Hine, City Clk. will receive bids until Feb. 23 for \$86,000 bonds.

Fla., Bradentown—Road—Manatee County Commrs., Mayakki Special Road and Bridge Dist. voted \$150,000 bonds. (Lately noted.)

Fla., Brooksville—Jerry Kilpatrick Special Road and Bridge Dist., Hernando County, L. B. Varn, Chmn. Bd. of Commrs, will receive bids until Feb. 3 for \$75,000, 6% bonds.

Fla., Clearwater—Road, Bridge—Pinellas County, Special Road & Bridge Dist. No. 1, will vote March 8 on \$259,000 bonds. Address County Commrs.

Fla., Miami—Improvement—City will vote on \$2,575,000 bonds; tentative plans for voting additional \$1,375,000 bonds. Address The Mayor.

Fla., Orlando—School—City voted \$50,000 bonds. Address The Mayor.

Fla., Pensacola—Indebtedness—City will sell \$50,000, 6 per cent \$1000 denom. bonds. Address The Mayor.

Ga., Macon—School—Bibb County, J. Ross Bowdre, Clk., will receive bids until May 1 for \$500,000 bonds.

Ga., Rochelle—School—W. M. Davis & Co. of Macon, purchased \$1000, 6% bonds. Address The Mayor.

Ky., Ashland—School—Ashland School Dist., P. D. Wells, Secy. Bd. of Education, will receive bids until Feb. 1 for \$60,000, 4½% bonds.

Ky., Georgetown—School—Georgetown School Dist. sold \$62,000, 5% bonds to Harris Trust & Savings Bank of Chicago at premium.

La., Elton—Water—Town, J. W. Stokes, Mayor, will receive bids until Feb. 12 for \$35,000, 5½% bonds.

La., Tahuliah—Levee—Fifth Louisiana Levee Dist. sold \$125,000, 5% \$1000 denom. bonds to Caldwell & Co. Nashville.

La., West Monroe—Municipal—City, C. C. Bell, Mayor, will vote in February on \$200,000 bond issue.

Md., Cumberland—School—Allegany County, Thomas P. Richards, Clk. Bd. of Commrs., sold \$500,000, 4½% bonds to Strothers, Brogden & Co., Baltimore.

Miss., Clarksdale—Drainage—Hopson's Bayou Drainage Dist., Sub-Drainage Dist. No. 1, C. G. Bodo, Secy. will receive bids until Jan. 23 for \$30,000, 6%, \$1000 denom. bonds.

Miss., Gulfport—School—Gulfport sold \$175,000 bonds to the Whitney Central Trust and Savings Bank of New Orleans at par and accrued interest. Address The Mayor.

Miss., Magee—Light—Magee sold \$10,000, 6%, \$1000 denom. bonds to the Commercial Bank of Magee at par. Address The Mayor.

Miss., Picayune—School—City, sold \$75,000 bonds to the Bank of Picayune. Address The Mayor.

Mo., Guilford—Drainage—Andrew-Nodaway Drainage Dist., Jacob Nelson, Dist. Secy., will sell \$200,000 bonds, Jan. 24.

Mo., Harrisonville—Sewer—City, C. A. Burke, City Clk., will receive bids until Jan. 31, for \$60,000 bonds. (Lately noted.)

Mo., Kansas City—Park—City sold \$309,800, 6% bonds to the Fidelity National Bank of Kansas City at premium, Address The Mayor. (Lately noted.)

Mo., Marshall—Road and Bridges—Saline County, L. M. Barnhill, Clk., will receive bids until Feb. 15 for \$150,000, 5 per cent bonds.

Mo., Richland—School—City will vote Jan. 23 on \$35,000 bonds. Address The Mayor.

Mo., Richmond—Sewers—City voted \$60,000 bonds. Address The Mayor.

Mo., Vandalia—School—Vandalia School Dist. No. 2, sold \$70,000, 4½% bonds to the Vandalia Banking Assn. of Vandalia at par.

N. C., Clinton—Road and Bridge—Sampson County will receive bids until Feb. 8 for \$100,000, 6% bonds. Address County Commrs.

Okla., Chickasha—School—City, O. Coffman, Mayor, will vote Jan. 30 on \$175,000 bonds.

Okla., Grove—School—Grove voted \$32,000 bonds. Address The Mayor.

Okla., Miami—School—City will vote on \$100,000 bond issue. Address The Mayor.

Okla., Ponca City—School—City will vote on \$100,000 bonds. Address The Mayor.

Okla., Red Rock—School—Red Rock voted \$12,000 bonds. Address The Mayor.

Okla., Weleetka—Road—Okfuskee County sold \$200,000 bonds to Edwards Bond Co. of Oklahoma City. Address County Commrs.

S. C., Camden—Street—City sold \$100,000, 5%, \$1000 denom. bonds to J. H. Hilsman, & Co. of Atlanta. Address The Mayor.

S. C., Union—Street—City sold \$150,000 bonds to the Bank of Charleston at par. Address The Mayor.

Tenn., Memphis—School—City sold \$500,000, 6% revenue notes to F. S. Moseley & Co. of Boston. Address The Mayor. (Lately noted.)

Tex., Anson—Road—Stanford Road Dist., E. S. Cummings, County Judge, will vote March 3 on \$200,000 bonds. (Lately noted.)

Tex., Fort Stockton—Water—Pecos County, R. D. Blaydes, County Judge, sold \$60,000, 6%, \$1000 denom. bonds to Booth & Co., Wichita, Kansas. (Lately noted.)

Tex., Fort Stockton—Water—Pecos County Water Improvement Dist., J. L. Mitchell, Secy. Bd. of Directors, will receive bids until March 1 for \$36,000, 6% bonds.

Tex., Fort Worth—Improvement—City sold \$2,750,000, 5% bonds to a syndicate composed of Chase Securities Corp., Keane Higbie & Co., H. L. Allen & Co. of N. Y. A. C. Allyn & Co., the Northern Trust Co., of Chicago, B. J. Van Ingen & Co. of New York and Crosby McConnell & Co. of Denver. Address The Mayor. (Lately noted.)

Tex., Galveston—Municipal—A. D. Barberis, city purchasing agent, will receive bids until Jan. 30 for \$297,500 bonds.

Tex., Greenville—Street—City sold \$125,000 bonds to Harris Trust Co. of Chicago and the Breg-Garrett & Co., of Dallas. Address The Mayor.

Tex., Hearne—Road—Robertson County sold \$200,000 bonds to Breg-Garrett & Co. of Dallas. Address County Commrs.

Tex., Loraline—School—Loraline Independent School Dist. D. D. Smith, Secy., will vote Jan. 24 on \$40,000, 5% bonds.

Tex., Perryton—Water and Light—City sold \$110,000 bonds to Caldwell & Co. of Nashville Tenn., at premium. Address The Mayor.

Tex., Quanah—Water—City, sold \$98,000, 6%, \$1000 denom. bonds to Berg-Garrett & Co. of Dallas at par. Address The Mayor.

Tex., Rosenberg—Municipal—City voted \$20,000 bonds. Address The Mayor.

Va., Graham—Paving—City will vote about Feb. 20 on \$38,000 bonds. Address The Mayor.

Va., Portsmouth—Refunding—City, L. C. Brinson, City Clk., will receive bids until Jan. 22 for \$300,000, 4½%, \$1000 denom. bonds.

W. Va., Logan—School—Logan Dist. voted \$195,000 bonds. Address Dist. Bd. of Education.

Financial Notes.

Atlantic Life Insurance Co., Lynchburg, Va., will increase capital from \$300,000 to \$1,000,000.

Bank of Commerce, Jackson, Tenn., will increase capital from \$50,000 to \$100,000.

Bank of Commerce and Trust Co., Memphis, Tenn., increased capital from \$1,500,000 to \$3,000,000.

Blue Ridge Building and Loan Assn., Blue

In Cost Accounting

Simplicity is Just Knowing How to Avoid the Complex

One of the surest indications of Progress in modern business methods is the Simplification of Cost Accounting.

Red tape has been eliminated. Simple Straight Line Methods have taken the place of old laborious routine, with the result that greater efficiency is attained with far less effort.

Bookkeepers and Cost Accountants have long wasted valuable time in making general ledger entries to expense accounts and closing out such accounts each month to obtain the operating statement. Today the proper application of the Cost Working Sheet eliminates all the unnecessary accounts and records.

While no one system can possibly apply to all needs, all Progressive Systems are based on the fundamental principles of Simplicity, Straight Line Methods, and just *knowing how to avoid the complex*.

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AUDITS - SYSTEMS
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KANSAS CITY

CLEVELAND
BUFFALO
PITTSBURGH
DETROIT
CINCINNATI

INDIANAPOLIS
TOLEDO
ATLANTA
RICHMOND
BALTIMORE

NEW ORLEANS
DALLAS
FORT WORTH
HOUSTON
DENVER

Ridge, N. C., will increase capital from \$5,000,000 to \$10,000,000.

Carter County Commercial Bank of Olive Hill, Ky., will increase capital from \$20,000 to \$40,000.

Dallas County State Bank, Dallas, Tex., changed name to Mercantile Bank and Trust Co., and increased capital from \$250,000 to \$500,000.

Elk Banking Co., Charleston, W. Va., will increase capital from \$100,000 to \$150,000.

Fifth Dist. Building and Loan Assn. Covington, Ky., will increase capital from \$300,000 to \$500,000.

First State Bank of Harlan, Ky., will increase capital from \$50,000 to \$100,000.

Flat Top National Bank, Bluefield, W. Va., increased capital from \$100,000 to \$250,000.

Mexico Savings and Loan Assn., Mexico, Mo., will increase capital from \$300,000 to \$500,000.

Municipal Securities Co., Memphis, Tenn., increased capital from \$50,000 to \$100,000.

North Carolina Joint Stock Land Bank, Durham, N. C. increased capital from \$250,000 to \$500,000.

N. C., Hickory—The First National Bank and the First Security Trust Co., will increase capital and surplus to \$575,000.

Planters' Savings Bank, Chatham, Va., will increase capital from \$26,000 to \$52,000.

St. Elmo Bank and Trust Co., St. Elmo, Tenn., will increase capital to \$25,000.

The Bank of Glen Jean, Glen Jean, W. Va. increased capital from \$50,000 to \$100,000.

The Consolidated Trust Co., Hickory, N. C., will increase capital from \$60,000 to \$100,000.

The First National Bank of Tampa, Fla. will increase capital from \$400,000 to \$1,000,000.

Trade Literature.

New Calendars.

Among the calendars recently received by the MANUFACTURERS RECORD are the following: A large wall calendar from the New York Central Lines with colored picture showing an express train rounding a curve in the Highlands of the Hudson; a fine, richly colored hanger calendar from the Hercules Powder Co., New York and other cities; a large wall calendar with big figures from Meyer & Thalheimer, stationers, printers and engravers, Baltimore, Md.; a substantial and artistic hanger calendar of cardboard from the Stafford Company, Readville, Mass.; manufacturers of textile machinery, J. H. Mayes, Southern Agent, Charlotte, N. C.; a practical hanger calendar, three months to a page and attractively prepared, from the Nordberg Manufacturing Co., Milwaukee, Wis., manufacturers of engines, hoists, compressors, condensers, castings, etc.; a wall calendar with colored cotton picking scene, from the Mandeville Mills, manufacturers of acid phosphate, fertilizers, cotton seed products, single and ply warp yarns, etc., Carrollton, Ga.; a fine hanger calendar appropriately illustrated from the Link-Belt Company, Philadelphia, Chicago and Indianapolis; a hanger calendar with suitable picture of its products, from the Houston Bag & Bagging Co., Houston, Texas.

Seeking a Secretary.

An announcement of the Charleston, (S. C.), Chamber of Commerce which appears elsewhere in this issue indicates that it is about to undertake port development work there and states that it is seeking an experienced man for the position of secretary. Further particulars are in the announcement.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Representatives Appointed.

Earl F. Scott & Company, Candler Building, Atlanta, Georgia, have been appointed representatives of the Buffalo Forge Company and its associates, the Buffalo Steam Pump Company and the Carrier Air Conditioning Company of America, for the State of Georgia and possible outlying territory not now covered by agencies.

Business Will Be Continued.

From Winchester, Kentucky, is reported the death on January 12 of H. A. Paynter, of the H. A. Paynter Coal Company, of that city with offices at 305-307 McEldowney Building and operations at Hazard, Harlan and Big Sandy, Ky., and Logan, W. Va. Until some further arrangement can be made it is the intention for C. P. Paynter to continue the business.

Sale of Big Car Building Plant.

The sale of a large and important railroad car building plant is announced elsewhere in this issue to take place on February 16. The sale includes the entire property of the Barney & Smith Car Company at Dayton, Ohio, consisting of 56 acres of land and seventy buildings. The plant is situated on three trunk line railroads. Further information will be found in the announcement.

Commercial Fair at Brussels.

The fourth official commercial fair organized by the city of Brussels, Belgium, under the patronage of the King of Belgium and the Belgium government is to be held at Brussels from April 9 to 25 inclusive. These fairs are opened each year on the second Monday in April and close the third Wednesday after the opening day. Applications for space are taken care of either at the head office or by Belgian consuls in their respective countries. The head office is at 19 Grand Place, Brussels, Belgium.

Consolidation Announcement.

The Dodge Sales & Engineering Co., Mishawaka, Ind., operating for the last eight years as the selling subsidiary of the Dodge Manufacturing Co. and the Dodge Steel Pulley Corporation, has been consolidated with the parent company the Dodge Manufacturing Corporation, which began business last July, when it took over the Dodge Manufacturing Co., organized in 1880, and the Dodge Steel Pulley Corporation, organized in 1917 to succeed the Oneida Steel Pulley Co., that began business in 1900. Thus, since July, last, the production of Dodge, Oneida and Keystone power transmission appliances and Dodge heavy oil engines has been conducted by the Dodge Manufacturing Corporation, and the sales department thereof will distribute them with Duncan J. Campbell as general sales manager and John A. Benyon assistant general sales manager. The district sales organization will be continued as branches. The advertising department will be under the direction of William W. French, advertising manager. Distribution of products is through fourteen branch warehouses in power using centers as well as through hundreds of representative mill supply men and jobbers. The Corporation also controls the Canada organization of the Dodge enterprises.

Now Has a Complete Line.

The Combustion Engineering Corporation, 43 Broad Street, New York City, has acquired the Quinn Oil Burner & Torch Co., and W. R. Quinn, formerly president of the latter, becomes manager of the fuel oil department of the Corporation, which is now in a position to furnish a complete line of oil burning equipment, including pump sets, tanks, etc., in addition to engineering service.

Conservative Financing Available.

On another page of this issue appears the announcement that one of the oldest and largest financial institutions in the South has a million dollars to lend upon industrial property and commercial real estate, and that it is seeking loans on these classes of realty. It is needless to observe that this announcement will be of interest to heads of industrial concerns, to contractors, and to property owners requiring financing of a conservative character. Further information concerning terms, etc., can be obtained by writing to the address given.

Heating Detroit Automobile Show.

One of the prominent features of the annual Detroit automobile show, which is being held this week at Detroit, Mich., is the boiler installation made by the Heine Boiler Company, of St. Louis, Mo. Two 234 b. hp. Heine boilers are installed, fired by Detroit underfeed stokers. The boilers are equipped with feed water heaters and other usual auxiliaries. Steam is used entirely for heating. The selection of Heine boilers as steam making equipment for this notable building is no exceptional instance. Many of the famous office buildings and hotels from coast to coast, as well as numerous large central train stations and industrial plants are equipped with boilers of this make. The Detroit show is held in the municipal garage building, 200 feet by 450 feet in area with three floors, providing an aggregate floor space of 270,000 square feet. It is planned to accommodate 650 cars and trucks.

Important Business Change.

It is announced that the friendly separation of the two divisions of the Ohio Body & Blower Co., Cleveland, Ohio, was accomplished January 1 when the Swartwout Company was organized. D. K. Swartwout, for years president of the first named company and of its parent, the Ohio Blower Company, is president of the new organization. The officers of the Swartwout Company are D. K. Swartwout president; W. M. Pattison, president of the Pattison Supply Company, and D. K. Swartwout, Jr., vice president; W. E. Clement, secretary and treasurer, the latter having been secretary of the Ohio Body & Blower Co., which will make automobile bodies exclusively. The Swartwout Company will continue the manufacture of their well known specialties; ventilators, core ovens, enameling ovens, metal buildings, and the steam line, including exhaust heads, steam and oil separators, steam traps and feed water heaters. These specialties were either invented or developed by Mr. Swartwout. It is stated that the holiday season enabled the Swartwout Company to move and be in production in only five days. Their new location is in the plant formerly tenanted by the Cleveland Milling Machine Co., on Euclid Ave., Cleveland.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

\$1,000,000 TO LEND

on Industrial Property *and* Commercial Real Estate

ONE of the oldest and largest financial institutions in the South is seeking loans on properties of these classes.

Executives of manufacturing concerns needing re-financing on a conservative basis, contractors desiring assistance in handling large scale construction work, and owners of income-producing property will be interested in this proposition.

Full particulars on request.

Address Box A-283

care of

Manufacturers Record
Baltimore, Maryland

These Debentures having been sold, this advertisement appears as a matter of record only.

\$50,000,000
(Closed Issue)

Anaconda Copper Mining Company

Fifteen Year 7% Convertible Debentures

To be dated February 1, 1923

To mature February 1, 1938

Coupon Debentures in denominations of \$1,000 and \$500, registerable as to principal only. Interest payable February 1 and August 1. Redeemable as a whole or in part at the option of the Company on any interest payment date upon thirty days' notice at 110. Principal and interest payable in United States gold coin at the office of the

GUARANTY TRUST COMPANY OF NEW YORK

and

THE NATIONAL CITY BANK OF NEW YORK, TRUSTEE

The principal of the Debentures will be convertible at any time prior to February 1, 1933, into the common capital stock of the Anaconda Copper Mining Company, as the same may from time to time be constituted, at the following rates, based upon the present par value of \$50 a share, and at rates proportionate thereto in case of any change in such par value; the first \$10,000,000 principal amount of Debentures to be presented for conversion may be converted at a price of \$53 a share; the next \$10,000,000 at a price of \$56 a share; the next \$10,000,000 at a price of \$59 a share; the next \$10,000,000 at a price of \$62 a share; and the last \$10,000,000 at a price of \$65 a share.

Application will be made to list these Debentures on the New York Stock Exchange

The Debentures are offered if, as, and when issued and received by us subject to authorization of the Company's stockholders and to approval by counsel of all legal matters. It is anticipated that delivery of interim receipts will be made on or about February 1, 1923.

Price 100 and Interest, Yielding 7%

Guaranty Company of New York		The National City Company	
Dillon, Read & Co.	Lee, Higginson & Co.	Kidder, Peabody & Co.	
Brown Brothers & Co.		Halsey, Stuart & Co., Inc.	
E. H. Rollins & Sons	Kissel, Kinnicutt & Co.	Hallgarten & Co.	
White, Weld & Co.	Hornblower & Weeks	Spencer Trask & Co.	
Hayden, Stone & Co.	Kean, Taylor & Co.	W. A. Harriman & Co., Inc.	
Redmond & Co.	Marshall Field, Gore, Ward & Co.	Chas. D. Barney & Co.	
Cassatt & Co.	Edward B. Smith & Co.	Graham, Parsons & Co.	
Blyth, Witter & Co.	J. & W. Seligman & Co.	Ames, Emerich & Co.	
Old Colony Trust Company Boston	First National Bank Boston	National Shawmut Bank of Boston	
Mellon National Bank, Pittsburgh		The Union Trust Company of Pittsburgh	
Continental and Commercial Trust and Savings Bank, Chicago			
First Trust & Savings Bank, Chicago		The Northern Trust Company, Chicago	
The Union Trust Company, Cleveland		The Cleveland Trust Company, Cleveland	
Anglo London Paris Company, San Francisco	Bank of Italy, San Francisco	Mercantile Securities Company, San Francisco	

The above information is based upon official statements and statistics on which we have relied. We do not guarantee but believe it to be correct.

These Bonds having all been sold, this advertisement appears as a matter of record only

\$100,000,000

Anaconda Copper Mining Company

First Consolidated Mortgage Series A Sinking Fund 6% Gold Bonds

To be dated February 1, 1923

Authorized Issue of Bonds, \$200,000,000

To mature February 1, 1953

Coupon Bonds in denominations of \$1,000 and \$500, registerable as to principal only, interchangeable with fully registered Bonds in denominations of \$1,000 and authorized multiples. Interest payable February 1 and August 1 without deduction for normal Federal income tax up to 2 per cent. Redeemable as a whole or in part at the option of the Company on any interest date on thirty days' prior notice at 105 if redeemed on or before February 1, 1933, at 103½ thereafter if redeemed on or before February 1, 1943, and at 102 thereafter and prior to maturity. Principal and interest payable in United States gold coin at THE NATIONAL CITY BANK OF NEW YORK and GUARANTY TRUST COMPANY OF NEW YORK, TRUSTEE.

The Company will refund upon proper application the Pennsylvania Four Mills Tax to holders of Series A Bonds resident in that State

The Mortgage will provide for a Sinking Fund to retire all present and future issues of Series A Bonds by maturity

The following information has been furnished by Mr. John D. Ryan, Chairman of the Board of Directors:

Business: The Anaconda Copper Mining Company together with the companies which have been heretofore consolidated with it have for nearly forty years occupied a position as the world's largest producers of copper and silver with also a large output of zinc, lead, gold, arsenic and other important metals, besides treating upon a custom basis large quantities of ores and metals for other producers. Through its acquisition of the American Brass Company, which is the largest factor in the world in the manufacturing and fabricating of copper and brass, the Anaconda Copper Mining Company has become a completely integrated organization covering every step in the copper industry, and now proposes to acquire a majority of the capital stock of the Chile Copper Company which has the most extensive and one of the most valuable known bodies of copper ore in the world.

Purpose of Issue: Through the issuance of these Bonds and \$50,000,000 Debentures, the Company will acquire 2,200,000 shares, constituting more than 50 per cent of the outstanding capital stock of the Chile Copper Company, will redeem the entire issue of its \$23,080,100 Ten-Year Secured Gold Bonds Series B 7 per cent, and will reimburse its treasury in part for the acquisition of the capital stock of the American Brass Company. The remaining proceeds will increase the Company's working capital.

Security: The Bonds, in the opinion of counsel, will be secured by a direct mortgage lien on all the plants, real estate and equipment owned by the Anaconda Copper Mining Company at the date of the execution of the Mortgage and by the pledge thereunder of shares of capital stock of certain controlled companies, subject to the prior payment of \$24,669,000 outstanding Series A 6 per cent Ten-Year Secured Gold Bonds, due January 1, 1929, which are non-callable. The total aggregate value of such properties and the assets of the said companies amounts to more than \$173,000,000, as included in the consolidated balance sheet of the Anaconda Copper Mining Company.

The Company will also specifically pledge with the Trustee for the prior security of Bonds issued under the First Consolidated Mortgage, shares of capital stock of the Chile Copper Company, American Brass Company and Inspiration Consolidated Copper Company which, on the basis of actual cost, represent a value in excess of \$130,000,000.

The Mortgage will contain provisions for its modification, in certain respects, with the assent of holders of 75 per cent of outstanding Bonds.

Balance Sheet: On the basis of the consolidated balance sheet of the Company as of September 30, 1922, after giving effect to the application of the proceeds of sale of these \$100,000,000 Bonds and to the issue of \$50,000,000 Debentures, the net tangible assets, after deducting all liabilities, except funded debt, are \$382,335,995, as compared with a mortgage indebtedness of \$124,669,000 and a total funded debt, including the Debentures, of \$174,669,000.

Earnings: The combined average annual net income of the Anaconda Copper Mining Company and the American Brass Company, before interest and depreciation, but after Federal taxes, for the ten years ended December 31, 1921, amounted to \$26,990,408 per year which is almost 3½ times the annual interest charges on the presently proposed mortgage indebtedness, including this issue, and over two and one-quarter times the annual interest charges on the total funded debt, including the proposed issue of Debentures.

While unsatisfactory conditions prevailed during the first part of the year 1922, operations during the last half of the year have resulted in earnings available for interest and depreciation at the rate of over \$12,000,000 per annum.

Because of an exceptionally low production cost the Chile Copper Company on the basis of a 15c price for copper should show an average profit before interest, depreciation and depletion of over \$14,000,000 per annum at the present rate of production.

Application will be made to list these Bonds on the New York Stock Exchange

The Bonds are offered if, as and when issued and received by us subject to authorization of the Company's stockholders and to approval by counsel of all legal matters. It is anticipated that delivery of interim receipts will be made on or about February 1, 1923.

Price 96½ and Interest, Yielding over 6.25%

Against confirmed sales, we will accept in payment, bond for bond, Anaconda Copper Mining Company Ten-Year Secured Gold Bonds, Series A 6 per cent due January 1, 1929, at 102 and accrued interest to February 1, 1923 and Ten-Year Secured Gold Bonds Series B 7 per cent, due January 1, 1929, at 104 and accrued interest to February 1, 1923, the difference in each case to be paid in cash at the time of delivery of the new bonds of the Company. Special forms of interim receipts will be issued covering these exchanges. Bonds issued in exchange for Ten-Year Secured Gold Bonds, Series A 6 per cent, will be in addition to the amount of this offering.

Guaranty Company of New York

Bankers Trust Company, New York

Dillon, Read & Co.

Kidder, Peabody & Co.

E. H. Rollins & Sons

White, Weld & Co.

Hayden, Stone & Co.

Redmond & Co.

Cassatt & Co.

Blyth, Witter & Co.

Old Colony Trust Company, Boston

Mellon National Bank, Pittsburgh

Continental and Commercial Trust and Savings Bank, Chicago

First Trust & Savings Bank, Chicago

The Union Trust Company, Cleveland

Anglo London Paris Company, San Francisco

Lee, Higginson & Co.

Brown Brothers & Co.

Kissel, Kinnicutt & Co.

Hornblower & Weeks

Kean, Taylor & Co.

Marshall Field, Gloré, Ward & Co.

Edward B. Smith & Co.

J. & W. Seligman & Co.

First National Bank, Boston

Bank of Italy, San Francisco

The National City Company

The Mechanics & Metals National Bank, New York

Harris, Forbes & Co.

Halsey, Stuart & Co., Inc.

Hallgarten & Co.

Spencer Trask & Co.

W. A. Harriman & Co., Inc.

Chas. D. Barney & Co.

Graham, Parsons & Co.

Ames, Emerich & Co.

National Shawmut Bank of Boston

The Union Trust Company of Pittsburgh

The Northern Trust Company, Chicago

The Cleveland Trust Company, Cleveland

Mercantile Securities Co., San Francisco

The above information is based upon official statements and statistics on which we have relied. We do not guarantee but believe it to be correct.

Construction Progress on \$2,000,000 Gandy Bridge.

St. Petersburg, Fla., Jan. 19—[Special.]—Progress is being made on construction of the bridge and causeway over old Tampa Bay to connect Tampa and St. Petersburg, which is being built by the Gandy Bridge Co. at a cost of \$2,000,000, and to which reference was made by the MANUFACTURERS RECORD several weeks ago.

The total length of the bridge will be 30,390 feet, the causeways being 16,900 feet and the concrete bridge 13,490 feet. Built as a fill with a 40-foot top for roadway, the causeways will be 400 feet across at the bottom, with a mean elevation above water 10 feet to the level of the fill. The concrete bridge will be of reinforced concrete and constructed sufficiently heavy to provide for future traffic, loads, weather

conditions, etc. A draw of the double jack-knife type will be provided with a width of 75 feet in the clear, its location and type having been approved by the War Department.

When the bridge is completed the distance between Tampa and St. Petersburg will be but 19 miles as compared with 57 miles by automobile, 55 miles by rail and 23 miles by steamer. At present two dredges are at work day and night on the Tampa side and one on the St. Petersburg side and as soon as additional dredges can be secured they will be added for filling about 17,000 feet for the causeways.

W. G. Thompson, formerly in charge of important concrete construction work at the Panama Canal, is the engineer in charge of construction.

RADIO IN THE HOME



The wireless telephone brings your home into direct contact with the outside world. News of the day, lectures, concerts, dance music, and entertainments of every type are brought to metropolitan apartment as well as to rustic fireside. We are taking orders for Receiving Sets and any information will be cheerfully given. Prices range from \$25 to \$200, according to distance of receiving. Complete stock of parts from which you can make your own outfit. Books of instruction and plans for same. Place your orders to insure early delivery.

JOS. M. ZAMOISKI CO.
19 N. LIBERTY ST. The Electrifiers BALTIMORE, MD.

ROBERTSON, FURMAN & MURPHY

ACCOUNTANTS—ENGINEERS—TAX SPECIALISTS

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TODD & McCOLLOUGH

Members of

AMERICAN SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS

Auditing, Cost and Accounting Systems,
and Federal Tax Service.

No. 328 South Tryon St.

Charlotte, N. C.

Advertised Goods Reach You Without Lost Motion

A big part of the cost of living today may be charged to lost motion, to slow, slipshod distribution of goods, and to old style, wasteful selling methods.

For example, every year tons of fruits and vegetables rot on the ground, because it doesn't pay to pick them. Discouraged growers plant less the next season, and the supply of food is reduced. Meanwhile, consumers in the cities near by grumble over high prices. Demand and supply are not brought together.

Contrast this with the handling of oranges. \$1,000,000 a year is spent for advertising by the co-operative association of the California Fruit Growers. A large sum; yet it is only about one-fifth of a cent per dozen—one-sixtieth of a cent for each orange sold.

And this advertising has kept down the cost of oranges. To quote an official of the Exchange:

"The cost of selling oranges and lemons through the California Fruit Growers' Exchange is lower today than it was ten years ago.

"In the twelve years since the first campaign was launched the consumption of California oranges has doubled. The American consumer has been taught by co-operative advertising to eat nearly twice as many oranges as before.

"Had the orange industry remained on the old basis, there would have been no profit in growing oranges. New acreage would not have been planted. Old orchards would most surely have been uprooted and other crops planted."

Advertising, properly done, saves money for the consumer and makes money for the producer by driving out wasteful methods, increasing volume and cutting down the costs of selling and distribution.

[Published by the MANUFACTURERS RECORD in co-operation
with The American Association of Advertising Agencies]

A Constructive Banking Policy Is an Aid to Prosperity

A fact which is so axiomatic it is almost needless to be repeated. It is sufficient to say that the policy of this bank is to render modern banking service of the best form. Its success in pleasing 15,000 customers is an evidence of the course pursued.

Correspondence invited.

BALTIMORE COMMERCIAL BANK

GWYNN CROWTHER, President

Pratt Street and Market Place, Baltimore, Md.

Capital and Surplus \$900,000.00

Member Federal Reserve System

MARYLAND TRUST COMPANY BALTIMORE

Transacts a General Trust and Banking Business

Correspondence and interviews invited

CAPITAL, \$1,000,000

MARINE BANK & TRUST COMPANY

New Orleans, Louisiana

Capital and Surplus - \$2,300,000.00

General Banking - Domestic and Foreign

Correspondence Invited

We Buy Bonds

and invite inquiries from municipalities and contractors

We deal in city, county, district, school, road, lighting, water works and other municipal issues.

A. C. ALLYN & CO.

71 W. Monroe St.

Chicago, Ill.

WE BUY MUNICIPAL BONDS

We are interested in the purchase of Southern Municipals including road, school, county, drainage and levee bonds.

M. W. ELKINS & CO.

Southern Trust Bldg.

Little Rock, Ark.



THE HOUSE OF SERVICE

HAMMERMILL LETTER HEADS

For Bank, Mill, Mine, Factory and Commercial House

8 1/2 x 11—Full 20 lb. Weight

1000—\$5.35	5000—\$16.75
2000—8.70	10000—28.50

Shipped 48 Hours After Receipt of Order
Charges prepaid to your railroad station
Samples on request

LAREW PRINTING CO., Knoxville, Tenn.

IN RICHMOND VIRGINIA

The First National Bank offers complete facilities for quick collections in this territory.

FIRST NATIONAL BANK

JOHN M. MILLER, JR.,
President

Resources over \$30,000,000
Capital and Surplus \$4,000,000

Investment Bankers

are offered

Power and Light Securities

issued by companies with long records of substantial earnings.

We extend the facilities of our organization to those desiring detailed information or reports on any of the companies with which we are identified.

Electric Bond and Share Company

(Paid-up Capital and Surplus, \$35,000,000)

71 Broadway

New York

We Buy Bonds

City, County, School and Road, from Municipalities and Contractors

WRITE

THE PROVIDENT SAVINGS BANK & TRUST CO.
CINCINNATI OHIO

We Buy

SOUTHERN MUNICIPAL BONDS

Correspondence Solicited

CALDWELL & CO., NASHVILLE, TENN.

New York Chicago St. Louis
Detroit Cincinnati Chattanooga Knoxville

We Buy Bonds

Southern and Western
Municipal Bonds

Wire at our expense

CAMPBELL & KINSEY

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Toledo, Ohio

Branches: 618 Penobscot Bldg. Detroit; 313 Dixie Terminal, Cincinnati.

NOTICE TO CONTRACTORS

We want to buy bonds issued by cities, towns, counties, school, road or drainage districts that you may be able to take in exchange for work. Address us at our nearest office.

W. L. SLAYTON & CO.

New Orleans, La. Toledo, Ohio Tampa, Fla.
Chicago, Ill. Glasgow, Mont.

A. T. BELL & CO.

SECOND NATIONAL BANK BLDG.

JACKSONVILLE, FLA.

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COUNTY
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MUNICIPAL
BONDS

CITY
DISTRICT

CORRESPONDENCE INVITED FROM OFFICIALS & CONTRACTORS

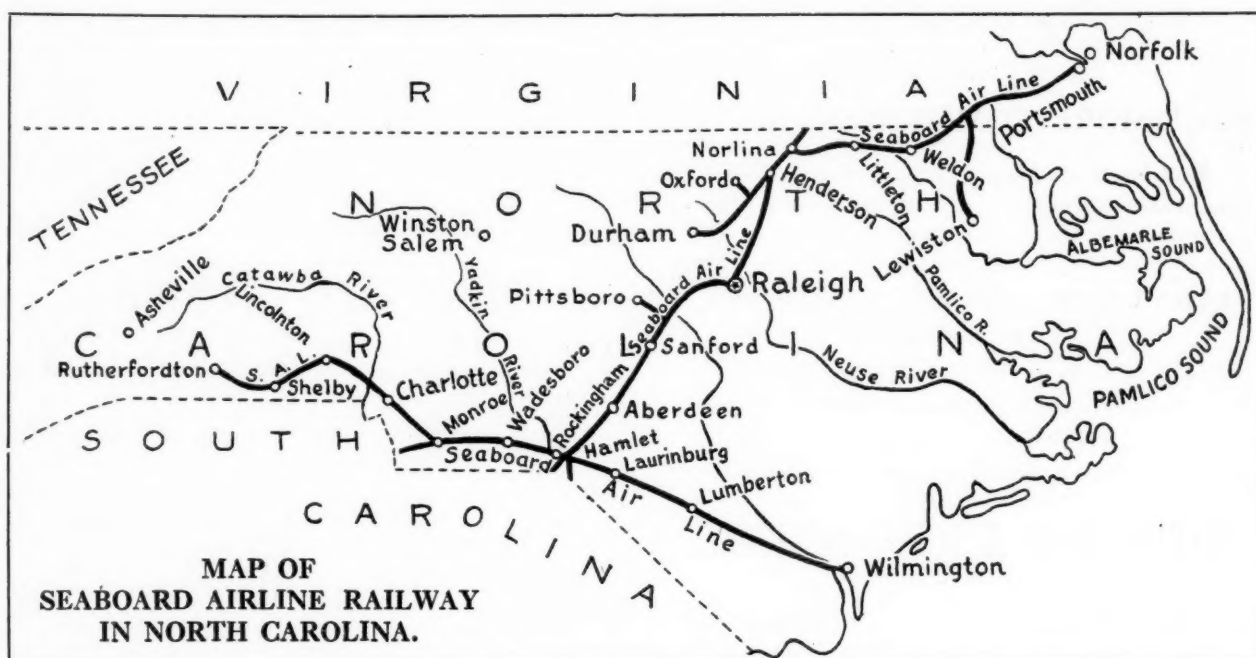
YOUNG & SELDEN COMPANY

MANUFACTURING

Bank and Commercial Stationers

BALTIMORE, MD.

North Carolina Destined to Be One of the Great Manufacturing States of America



North Carolina is a state of remarkable resources and remarkable achievements.

Stretching from the Atlantic Ocean on the east to the Piedmont Blue Ridge and the heart of the Appalachian Mountains on the west, this state has the advantage of an extensive variety of soil and climate for promoting diversified farming, and likewise a range of mineral and timber resources that offer the bases for many kinds of successful industries.

Power in abundance is made available through developed hydro-electric plants, having transmission lines traversing the greater part of the state, while extensive coal fields are nearby.

Native American labor is plentiful and is readily adaptable to industrial pursuits.

The Seaboard Air Line Railway crossing the state North and South and East and West, covers the main centers of activity, while the state's fine road system, which is being materially added to under a \$50,000,000 bond issue, gives ready access by highway to shipping points.

In the Seaboard territory are many good opportunities for the location of industries and for the establishment of profitable farming operations.

*Full co-operation will be extended
to those seeking further information.*

JESSE M. JONES, General Development Agent
SEABOARD AIR LINE RAILWAY
 Room 734 Royster Building **NORFOLK, VA.**

Alabama

Six Truths That Grip

Manufacturers who may be looking for locations for the establishment of Southern plants. Alabama makes its strong bid for recognition on the following **SIX POINTS**, in each of which it excels—

RAW MATERIALS—Cotton, iron, steel, cement, limestone, graphite, clays, wood of various kinds, coal, farm products in plenty.

WATER POWER—The greatest developed and undeveloped water power offered by any state in the union and sufficient to serve all industries without interruption every month in the year.

LABOR—Ample supply of native labor, who want to work, efficient and loyal to the industry.

CLIMATE—A year-round climate, never too hot and never too cold for the full operation of any class of industry.

TRANSPORTATION—Industries located in most any section of Alabama can ship by all-water rates to any part of the world; while the state is also a network of railroads.

CO-OPERATION—All communities in Alabama welcome the coming of new industries and will co-operate to the fullest extent in securing sites and providing any other assistance needed. Many communities offer free factory sites.

LAWS are fair and invite manufacturing enterprises.

These **SIX POINTS** should not fail to grip the attention of manufacturers everywhere. Those interested may obtain full information and all data desired by communicating with—

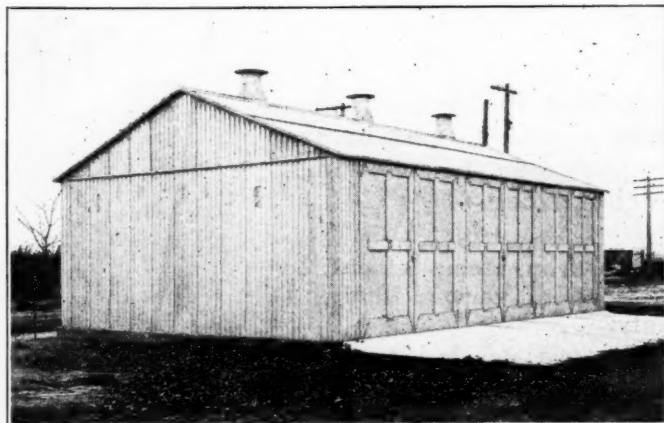
Alabama Power Co.

BIRMINGHAM . . . ALA.

RUST RESISTING METAL BUILDINGS

for
every
purpose

.....



"Lyonore" — non-corroding and rust resisting—is the metal, and the buildings are light, roomy and properly ventilated, and as comfortable as the more expensive structures.

Maryland Metal Buildings can be enlarged at any time for they are constructed of fabricated sections which are quickly shipped from stock. Yet these buildings are rigid and free from vibration.

Permanent for as long as you like, yet can be dismantled and re-erected with a salvage of 95%.

Write for more information and prices

MARYLAND METAL BUILDING COMPANY
Manufacturers

RACE & McCOMAS STS., BALTIMORE, MD.

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

Bids close February 7, 1923.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C. Jan. 17, 1923.—**SEALED PROPOSALS** will be opened in this office at 3 p. m., Feb. 7, 1923, for the Mechanical Equipment (exclusive of outside services, elevators, lighting fixtures and certain equipment) of the Administration Building and Mess Hall and Kitchen Building, at the U. S. Veterans' Hospital, Chelsea, N. Y. Specifications may be obtained at this office in the discretion of the Supervising Architect. Proposals will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract, and who have established a record for expedition on contracts of similar character and magnitude. The fact that any concern obtains a set of the plans and specifications from any source whatever and submits a bid shall not constitute a waiver of the foregoing stipulations. Jas. A. Wetmore, Acting Supervising Architect.

Bids close February 9, 1923.

PROPOSALS FOR steel, black iron, cast-steel bearings, water meters, steel bolts and rivets, nails, brass nuts, sheet copper and brass, marine boiler furnaces, steel drums, aluminum ware, steel cans, brass valves, liquid door checks, chain hoists, glass, ash oars, laundry soap, barium sulphate, artificial leather, canvas, typewriter ribbons, cotton sheeting, turkish towels, blue and brown print paper, blueprint cloth, tag-board, and cypress lumber.—Sealed proposals will be received at the Office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10.30 o'clock a. m., February 9, 1923, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and information relating to this Circular (1511) may be obtained from this office or

the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 611 Gravier Street, New Orleans, La.; and Fort Mason, San Francisco, Calif.; also from the United States Engineer Offices in the principal cities throughout the United States.—A. L. FLINT, General Purchasing Officer.

Bids close February 14, 1923.

TREASURY DEPARTMENT, SUPERVISING ARCHITECT'S OFFICE, Washington, D. C. January 20, 1923.—**SEALED PROPOSALS** will be opened in this office at 3 p. m., February 14, 1923, for an ice-making and refrigerating plant at the U. S. Veterans' Hospital, Chelsea, N. Y. Specifications may be obtained at this office in the discretion of the Supervising Architect. Proposals will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment, and organization to insure speedy completion of the contract, and who have established a record for expedition on contracts of similar character and magnitude. The fact that any concern obtaining a set of the plans and specifications from any source whatever and submits a bid shall not constitute a waiver of the foregoing stipulations. Jas. A. Wetmore, Acting Supervising Architect.

Bids close February 21, 1923.

U. S. ENGINEER OFFICE, Florence, Ala.—Sealed Proposals will be received here until 11 A. M., February 21, 1923, and then opened, for furnishing castings and other parts for the regulating gates of Wilson Dam. Further information on application.

Bids close February 20, 1923.

U. S. ENGINEER OFFICE, HUNTINGTON, W. VA.—Sealed proposals will be received here until 11 a. m., Feb. 20, 1923, and then opened for constructing and delivering three 80 x 26 x 5 ft. steel barges. Further information on application.

Bids close February 17, 1923.

U. S. ENGINEER OFFICE, Florence, Ala.—Sealed proposals will be received here until 11 A. M., February 17, 1923, and then opened, for furnishing displacement tanks for the regulating gates of Wilson Dam. Further information on application.

Bids close February 23, 1923.

\$86,000 Municipal Bonds

Bradentown, Fla., Jan. 15, 1923. Sealed bids for \$76,000.00 Street Paving Bonds, and \$10,000.00 Sewer extension, Water Works and Park Improvement Bonds will be received up to 8 o'clock P. M., February 23, 1923, by the City Council, at the Council Chamber, City Hall, Bradentown, Florida.

A certified check in the sum of \$1000.00 made payable to E. P. Green, Mayor, as an evidence of good faith, must accompany each bid.

The right to reject any and all bids is hereby reserved.

For further information address
L. L. HINE, City Clerk,
Bradentown, Fla.

Bids close February 1, 1923.

\$355,000 6% Bonds

Sumner, Miss. Sealed proposals will be received by the Commissioners Upper Quiver River Drainage District until twelve o'clock noon, February 1st, 1923, for \$355,000.00 six per cent serial bonds, maturing April 1st, 1931 to April 1st, 1948.

Certified check for five per cent of amount bid shall accompany each bid.

The right is reserved to reject any and all bids.
For further information apply to Hays, Stingily & Whitten, attorneys, Sumner, Mississippi.

M. P. STURDIVANT
President.

Bids close February 6, 1923.

DEPARTMENT OF THE INTERIOR,
WASHINGTON, D. C., January 11, 1923.
Sealed proposals in duplicate will be received at the Department until 2 o'clock P. M. Tuesday February 6, 1923 for the erection and completion of laboratory and isolation buildings at Saint Elizabeths Hospital, Washington, D. C., in accordance with the drawings and specifications for the work, copies of which, with form of proposal, may be had upon application to the Department. A certified check in the sum of Twenty Five Dollars (\$25.00), payable to the order of the Secretary of the Interior, will be required as a guarantee for the safe return of each set of plans. The right is reserved to reject any and all bids, waive technical defects, and to accept one part and reject the other as the interests of the Government may require. Proposals must be securely enveloped, marked "Proposal for erection of laboratory and isolation buildings at Saint Elizabeths Hospital" and be addressed to the Secretary of the Interior, Washington, D. C.—F. M. Goodwin, Assistant Secretary.

Bids close February 12, 1923.

U. S. ENGINEER OFFICE, Florence, Alabama. Sealed proposals will be received here until 11 A. M., February 12, 1923, and then opened, for furnishing and delivering one electric generator of 937.5 K. V. A. capacity with direct connected exciter. Further information on application.

Bids close February 12, 1923.

Reinforced Concrete Bridge.

Brevard, N. C. January 25, 1923.

Sealed Proposals will be received until 2 o'clock of February 12, 1923, by the Road Commissioners of Transylvania County at their office in Brevard N. C. for the construction of a reinforced concrete bridge over the French Broad River at Penrose, N. C. Plans and specifications for this bridge are on file at the office of the Commissioners. Alternate plans, subject to approval by the Commissioners, may be submitted five days prior to date of opening bids. A certified check for \$500.00, made payable to T. H. Shipman, Chairman, must accompany each bid. The Commissioners reserve the right to reject any or all bids.
Chas. E. Orr, Secretary.

Bids close February 2, 1923.

Suwannee River Bridge Construction

Sealed Proposals, on blank forms furnished by the Counties, of Levy, Alachua and Dixie, will be received by the Boards of County Commissioners of Levy, Alachua, and Dixie Counties, at Trenton, Florida, until 10 o'clock A. M., on February 2nd 1923, at which time they will be publicly opened and read for the following bridge construction on the Suwannee River.

For moving the 150 foot steel draw bridge at Fowler's Bluff on the Suwannee River to Fort Fannin, on the Suwannee River, and for erecting same; for constructing center pier of reinforced concrete with steel shell at Fort Fannin; for constructing approximately 270 feet of 16 foot wooden highway bridge; for clearing right-of-way and grading necessary for approaches; for clearing Suwannee River of piling, etc., at Fowler's Bluff.

Plans and Specifications can be examined at the Clerk's office, in the Court House at Gainesville, Florida; at Bronson, Florida; and at Cross City, Florida. Plans and Specifications can be examined at the Engineer's Office, at Cedar Key, Florida, or can be secured from the Engineer upon payment of \$5.00 to cover cost of printing.

Each bid must be accompanied by a certified check or bidder's bond for an amount at least equal to five per cent of the amount of the bid.

The contract, if awarded, will be awarded subject to the approval of the proposed site by the War Department and by the Chief of Engineers, U. S. A.

The right is reserved to reject any or all bids.

W. R. Hodges, Chairman, Levy County Commissioners.

L. W. Drummond, Clerk, Levy County Commissioners, Bronson, Florida.

J. T. Price, Chairman, Alachua County Commissioners.

M. S. Cheeves, Clerk, Alachua County Commissioners, Gainesville, Fla.

W. T. Green, Chairman, Dixie County Commissioners.

L. L. Barber, Clerk, Dixie County Commissioners, Cross City, Florida.

D. Frazer Thomas, Engineer, Cedar Key, Florida.

Bids close February 14, 1923.

Road and Bridge Construction.

OFFICE OF THE VIRGINIA STATE HIGHWAY COMMISSION

Richmond, Virginia, Jan. 19, 1923.

Sealed bids will be received at the Office of the Virginia State Highway Commission, Corner 10th and Marshall Streets, Richmond, Va. until 10:30 A. M. Wednesday, February 14th 1923, for the construction of:

1—(a) PROJECT 48-C ROUTE 14—From Big Island to Snowden in Bedford and Amherst Counties—5.2 Miles of 16 ft. Bit. Macadam roadway involving approximately 16 Acres Clearing and Grubbing, 91,000 Cu. Yds. Excavation, 600 Lin. Ft. Vitrified Clay Pipe, 1250 Lin. Ft. Cast Iron Pipe, 560 Cu. Yds. Concrete Class "A" 84 Cu. Yds. Class "B" Concrete, 40,500 Lbs. Reinforcing Steel, 3900 Cu. Yds. Dry Rubble Masonry Retaining Wall 8160 Lin. Ft. Wooden Guard Rail, 952 Lin. Ft. Wooden Guard Rail with Steel Posts.

1—(b) THREE BRIDGES OVER: Hunting, Battery, and Peters Creeks having total length of 190 ft. width of roadway 19 ft. involving approximately 346 Cu. Yds. Class "A" Concrete 90 Cu. Yds. "B" Concrete 66,330 Lbs. Reinforcing Steel.

2—PROJECT 107 ROUTE 23—From Pearisburg toward Ripplemead in Giles County, 2.8 miles of 12 ft. Surface Treated Macadam Roadway, Involving Approximately 23,138 Cu. Yds. Excavation 190 Lin. Ft. Vitrified Clay Pipe, 236 Lin. Ft. Cast Iron Pipe 18 Cu. Yds. Class "B" Concrete 28 Cu. Yds. Class "B" Concrete 2269 Lbs. Reinforcing Steel 700 Lin. Ft. Wooden Guard Rail.

3—PROJECT 136-A ROUTE 17 From Orange County Line 2.75 miles West in Greene County, approximately 2.75 miles of Bituminous Macadam roadway involving approximately 1 Acre of Clearing and Grubbing, 10,647 Cu. Yds. Excavation, 290 Lin. Ft. Cast Iron Pipe, 114 Lin. Ft. Vitrified Clay Pipe, 19 Cu. Yds. Class "B" Concrete 400 Lin. Ft. Wooden Guard Rail.

4—PROJECT 135-C ROUTE 17 From Barboursville to Green County Line in Orange County—0.8 miles of 12 Bituminous Macadam road involving approximately 5633 Sq. Yds. Bituminous Macadam.

5—PROJECT F178-Route 1 From Clarksville to the North Carolina Line, in Mecklenburg County—6.13 miles of 18 ft. Concrete Road involving approximately 16 Acres Clearing and Grubbing, 43,400 Cu. Yds. Excavation 782 Lin. Ft. Cast Iron Pipe, 654 Lin. Ft. Vit. Clay Pipe encased in concrete, 110 Cu. Yds. Class "A" Concrete 100 Cu. Yds. Class "B" Concrete 9100 Lbs. Reinforcing Steel 2169 Lin. Ft. Wooden Guard Rail.

6—(a) PROJECT 141-B ROUTE 18 From 1.12 miles South of Brookneal to Volens—7.52 miles of Soil Roadway involving approximately 19 Acres Clearing and Grubbing 47,900 Cu. Yds. Excavation 1057 Lin. Ft. Vitrified Clay Pipe, 53.6 Lin. Ft. Cast Iron Pipe 2.55 Cu. Yds. Class "A" Concrete 533 Cu. Yds. Class "B" Concrete, 20,823 Lbs. Reinforcing Steel 2368 Lin. Ft. Wooden Guard Rail.

7—(a) PROJECT S-158 ROUTE 1 The Streets of Clarksville in Mecklenburg County—0.93 miles of 50 & 18 ft. Concrete Pavement involving approximately 4000 Cu. Yds. Excavation 282 Lin. Ft. Cast Iron Pipe 850 Lin. Ft. Wooden Guard Rail, 2 Catch Basins Complete with Cover, 2 Drop Inlets, 5000 Lin. Ft. Combination Curb and Gutter.

8—PROJECT 186-B ROUTE 12—The Bridge Over Sandy River near Danville in Pittsylvania County, involving approximately 146.5 Cu. Yds. Class "A" Concrete 39.3 Cu. Yds. Class "B" Concrete, 22,610 Lbs. Reinforcing Steel.

9—PROJECT 192-C ROUTE 3 From Station 437+00 to Fairfield in Rockbridge and Augusta Counties—11.07 miles of Bituminous Macadam roadway involving approximately 2 Acres Clearing and Grubbing 57,000 Cu. Yds. Excavation 1100 Lin. Ft. Cast Iron Pipe 268 Lin. Ft. Vitrified Clay Pipe, 267 Cu. Yds. Class "B" Concrete 17,500 Lbs. Reinforcing Steel.

9—(b) BRIDGES Over Marl and Christian Creeks, and the South River in Rockbridge and Augusta Counties involving approximately 124 Cu. Yds. Class "A" Concrete, 347 Cu. Yds. Class "B" Concrete 25,515 Lbs. Reinforcing Steel.

10—PROJECT F221 ROUTE 4 From Tasley to a point 6 miles South in Accomac County 6 miles of 18 ft. Concrete Roadway involving approximately 4 Acres Clearing and Grubbing, 13,119 Cu. Yds. Excavation 23,800 Cu. Yds. Borrow Excavation 633 Lin. Ft. Cast Iron Pipe.

11—PROJECT F246-A ROUTE 12Y From Franklin to the North Carolina State Line 7.86 Miles of 18 ft. Concrete Roadway involving approximately 10 Acres Clearing and Grubbing, 51,346 Cu. Yds. Excavation 1078 Lin. Ft. Cast Iron Pipe 440 Lin. Vitrified Clay Pipe encased in concrete 75 Cu. Yds. Class "B" Concrete 70 Cu. Yds. Class "B" Concrete 4071 Lbs. Reinforcing Steel.

12—PROJECT S26SA&B ROUTE 4X: From Tasley to Onancock in Accomac County 3.02 Miles 18 ft. Concrete Roadway involving approximately 10,540 Cu. Yds. Excavation 272 Lin. Ft. Cast Iron Pipe 18 Cu. Yds. Class "A" Concrete 57 Cu. Yds. Class "B" Concrete 3388 Lbs. Reinforcing Steel.

13—(a) PROJECT F225B ROUTE 1 From Rappahannock River to Fredericksburg in Spotsylvania County—0.65 Miles of Concrete roadway involving approximately 4791 Cu. Yds. excavation 54 lin. ft. Cast Iron Pipe 4 Cu. Yds. Class "B" Concrete 1083 Lin. Ft. Wooden Guard Rail.

14—PROJECT S225B ROUTE 1; BRIDGE over Spotsylvania Power Company's Canal at Falmouth Va., Having total length of 77'-6" Roadway 22 ft. Involving approximately 184 Cu. Yds. Class "B" Concrete 24,700 Lbs. Reinforcing.

15—PROJECT S256 ROUTE 11—From Burkes Garden Siding to Tazewell in Tazewell County 1.98 Miles of Bituminous Macadam roadway involving approximately 13,508 Cu. Yds. of Excavation 56 Lin. Ft. Pipe 234 Cu. Yds. Class "B" Concrete 2296 Lin. Ft. Wooden Guard Rail.

(B) ALTERNATE BIDS ARE REQUESTED FOR SURFACE TREATED MACADAM

A certified check or bidders bond must accompany each bid. Amount of certified checks as follows: Project F-48C—\$5,000.00 (b) Bridges—\$750.00. Project F-107—\$3500.00. Project F-136A—\$3250.00. Project F-1350—\$550.00. Project F-178—\$5000.00. Project F-141B—\$3000.00. Project S-158—\$3500.00. Project F-186B—\$500.00—Project F-1920—\$5000.00 (b) Bridges—\$750.00. Project F-221A—\$5000.00. Project F-246A—\$5000.00—Project S-268A & B—\$5000.00. Project F-225B Road \$3500.00—Bridge—\$350.00. Project S-256—\$2200.00. Amount of bidders bond 20 per cent in excess of certified checks.

Plans and specifications are on file at the Office of the Virginia State Highway Commission, Corner 10th & Marshall Sts., Richmond, Va., and at the Offices of the following District Engineers: Project 48C, 141B and 186 at Lynchburg, Va.; Project F-107 at Roanoke, Projects F-136A and F-135C at Culpepper, Va.; Projects F-178 and S-158 at Richmond, Va.; Projects F-192C at Staunton, Va.; Projects F-221A, F-246A and S-268 at Suffolk, Va.; Project F-225B and Bridge—Fredericksburg, Va. Project S-256 at Bristol.

Additional plans for bidders for the above projects can be obtained upon application to the State Highway Commissioner, upon receipt of \$5.00 made payable to Mr. H. G. Shirley, Chairman, \$2.50 of which will be refunded if plans are returned in good condition within two weeks after bids are opened, and bridge plans from W. F. Hobart, 805 1/2 E. Franklin Street, Richmond, Va., to cost as follows: Project F-48C—\$1.52, Project F-192C Bridges, \$1.52, Project F-186B—\$0.54.

Engineers will be at the following places to show prospective bidders over the projects: Projects F-48C at Big Island Va., 11:00 A. M. Tuesday, January 30th.—Project F-107, Friday January 26th at the Pearisburg Hotel, Pearisburg, Va., at 9:30 A. M. Project F-135C and F-136A at Southern Railroad Station, Barboursville, Va., 10:00 A. M., February 1st, Project F-141B Brookneal Hotel, Brookneal, Va., 9:30 A. M., Friday, February 9th, Projects S-158 and F-178 at Clarksville Hotel, Clarksville, Va., at 9:30 A. M. Thursday, February 8th. Project F-186B, Burton Hotel, Danville, Va., 10 A. M., Thursday, January 25th. Project F-192C at Fairfield, 10:30 A. M., Wednesday, January 31. Project F-221, and S-268 at Railroad Station, Tasley, Va., 10:00 A. M., Tuesday, February 6th. Project F-246 at Franklin Hotel, Franklin, Va., 10 A. M., Wednesday, February 7th. Project F-225B and Bridge, at the District Engineer's Office, Fredericksburg, Va., 10:30 A. M., Friday, February 2nd. Project S-256, County Engineers Office, Tazewell, C. H. 12 noon, January 25th.

The State Highway Commission reserves the right to reject any or all bids.

C. S. MULLEN H. G. SHIRLEY, Chairman
Asst. Engr. State Highway
Construction.. Commission.

Bids close February 20, 1923.

Street Paving

Umatilla, Fla.
Sealed proposals on blank forms furnished by the Town and addressed to "The Mayor and Council, Umatilla, Florida" will be received until 7 o'clock P. M. February 20th, 1923 at Umatilla, Florida for furnishing all material, labor and equipment and doing the following work:

Approximately 45,000 square yards of street paving with all necessary drainage and curb and gutter as specified.

Each bid must be accompanied by a certified check or bidder's bond, made payable to the Mayor, for not less than Three Thousand Dollars.

Plans and specifications can be seen at the office of the Town Clerk or at the offices of the Engineers, and specifications can be obtained from the Engineers.

The right is reserved to reject any or all bids.

H. S. JAUDON ENGINEERING CO.
ENGINEERS. Elberton, Georgia.
C. A. VAUGHN, Mayor.
J. A. MORRELL, Clerk.

Bids close January 30, 1923.

Street Improvements

Emporia, Va.
Sealed proposals will be received for the materials and labor in connection with the improvements of certain streets of the City of Emporia, Virginia, by the Mayor and Board of Commissioners of said City until two o'clock p. m., of January thirtieth, when they will be opened and publicly read.

The specifications cover sheet asphalt and bituminous concrete pavements, and in addition, proposals will be considered upon Warrenite-Bitultible and other special forms of pavements. Bids on special forms of pavements must be accompanied by complete and detailed specifications. Work contemplated includes grading, curb and gutter necessary, and the installation of storm drains.

Bids are asked upon approximately 30,000 square yards of pavement. Pavement will be constructed from one or more of the above classes as may be selected by the City, and the entire work to be done will be awarded under one or more contracts as the City may elect.

Plans and specifications may be secured from the Engineer at Wilson, N. C., by making a deposit of \$10.00 which deposit will be returned to actual bidders or upon the return of plans and specifications in good condition. Plans and specifications will be ready for delivery on January 20th.

Each proposal must be accompanied by a certified check in the sum of five (5) per cent of the amount bid as evidence of good faith upon the part of the bidder.

The City reserves the right to reject any or all bids or to accept any which may seem to be to the best interest of the City of Emporia.

E. E. EANNS, Mayor.
W. W. ROBERTSON, Clerk.
R. D. GLADDING, Engineer.
Wilson, N. C.

Bids close February 6, 1923.

Road Improvement

OFFICE OF THE STATE ROAD
DEPARTMENT

Tallahassee, Fla., Jan. 20, 1923.

Sealed proposals will be received at this office up to 12 o'clock M. on the 6th day of February, 1923 for the construction or improving of the following section of road.

Project No. 570, a portion of road No. 5 in Manatee County from Bradentown to the Sarasota Co. Line, a distance of approximately 3.967 miles. The work to consist of Clearing and Grubbing, grading, rock base, wearing surface and necessary Drainage Structures.

Alternate bids are desired on the following types of surface:

2½-in. Penetration Macadam on 8-in. Rock Base.

2½-in. Sheet Asphalt with Binder Course on 8-in. Rock Base.

6-in.—8-in.—6-in. Plain Concrete Surface.

All work to be done in accordance with plans and specifications of the State Road Department.

A certified check or bidder's bond in the sum of \$6000.00, and payable to the Chairman of the State Road Department, must accompany each proposal.

Plans and Specifications are on file and may be examined at this office and at the office of the Division Engineer, Lakeland, Florida and may be secured on application to this office for the sum of Five Dollars. An Engineer will be on this Project January 31, 1923 for the purpose of showing prospective bidders over the work.

W. F. COCKE H. B. PHILIPS
State Highway Engineer Chairman

Bids close February 9th, 1923.

Waterworks and Electric Light Improvements

Sealed proposals will be received, by the Town of Whiteville, North Carolina, at the Town Hall, until 2:30 P. M., February 6th, 1923, for the furnishing of the items of material and equipment listed below for Water Works and Electric Light Improvements. It is the intention to build one plant, the bids received will determine whether this will be operated by Steam, Diesel or Semi-Diesel Engines.

For Steam Plant:

- 1—90 K. V. A. Generator for direct connection to Unaflo Engine.
- 1—Exciter for above and belt.
- 1—150 K. V. A. Generator for direct connection to Unaflo Engine.
- 1—Exciter for above, and belt.
- 1—3 Panel Switchboard.
- 2—Unaflo Engines, one for each of above Generators.
- 2—100 H. P. High Pressure Boilers.
- 1—Feed Water Heater.
- 1—Feed Water Pump.
- 1—500 G. P. M. Steam Fire Pump.

For Diesel Engine Plant:

- 2—125 K. V. A. Generators for direct connection to Diesel Engines.
 - 2—Exciters for above, and Belts.
 - 1—Switchboard.
 - 2—Diesel Engines for above Generators.
 - 1—15,000 Gal. oil Storage Tank.
- For Semi-Diesel Engine Plant:
- 2—125 K. V. A. Generators for direct connection to Diesel Engines.
 - 2—Exciters for above, and Belts.
 - 1—Switchboard.
 - 2—Semi-Diesel Engines for above Generators.
 - 1—15,000 Gal. Oil Storage Tank.

Water Works System:

- 1—500 G. P. M. Centrifugal Pump with base for direct connection to 60 H. P. Motor.
- 1—500 G. P. M. Centrifugal Pump with base for direct connection to Gas Engine.
- 1—200 G. P. M. Centrifugal pump with base for direct connection to 20 H. P. Motor.
- 1—60 H. P. High Voltage, high speed, Slip Ring Motor.
- 1—20 H. P. Low Voltage, high speed, Motor.
- 3—7½ K. V. A. Transformers 2200/220.
- 1—Gas Engine.
- 1—60,000 Gal. Tank on 75 Ft. Tower.
- 4632—Ft. 8" B & S Pipe Class "B".
- 13,546—Ft. 6" B & S Pipe Class "B".

Necessary Cast Iron Fittings.
13,600—Ft. 1½" Galv. Pipe.
38—Standard Fire Hydrants.
5—8" H. E. Gate Valves & Boxes.
13—6" H. E. Gate Valves & Boxes.
22—1½" Sed. Gate Valves & Boxes.
13,000—Lbs. Virgin Pig Lead.
650—Lbs. Water Main Jute.
Copies of the specifications will be furnished on request by The J. B. McCrary Company, Engineers, Atlanta, Georgia.
All prices must be F. O. B. Whiteville, N. C.

Each bid must be accompanied by a certified check for 5 per cent of bid.
The Town reserves the right to reject any and all bids.

TOWN OF WHITEVILLE,
NORTH CAROLINA
RICHARD M. LEWIS, Mayor
M. J. MOYERS, Clerk
THE J. B. MCCRARY COMPANY, Engineers

Bids close February 2, 1923.

Water Works Extensions

Plant City, Fla.

Notice is hereby given that the Board of Public Works of the City of Plant City, Florida will at a meeting to be held Friday, Feb. 2nd 1923 at 3 o'clock P. M., at the City Hall in said city, receives bids in writing for furnishing the following described material for installing an extension of the water works system of said city; to-wit:

- 9770 lin. feet of 6" Bell and Spigot Cast iron pipe.
- 980 lin. feet 4" Bell and Spigot Cast iron pipe.
- 4970 lin. feet 1½" galvanized pipe.
- 23 6" Gate valves bronze fittings.
- 2 4" Gate valves, bronze fittings.
- 18 6" Fire Plugs, 2-2½" hose connection.
- 10 6" Tees.
- 2 6" Crosses.
- 2 4" Tees.
- 1 4x6 increaser.
- 400 pounds hemp.
- 9500 pounds lead.

Bids to state whether f.o.b. Plant City or place of shipment contemplated. Bids to be submitted in writing to the undersigned prior to the hour named. Full description of commodity offered is to be contained in bid. The Board reserves the right to reject any or all bids. Bidders or representative may be present at the opening:

Address the Undersigned:

W. H. DURRANCE,
Clerk, Board of Public Works.

Bids close January 31, 1923.

Sanitary Sewers

DEPARTMENT OF PUBLIC IMPROVEMENTS,
SUB-DEPARTMENT OF HIGHWAYS
ENGINEER,

Baltimore, Md., Jan. 17th, 1923.

SEALED BIDS OR PROPOSALS FOR THE CONSTRUCTION OF SANITARY SEWERS IN DISTRICT 11, as outlined in Sanitary Contract No. 197, comprising approximately:

- 1327 Lin. Ft. 24" Vitrified Pipe Sewer.
- 1327 Lin. Ft. 12" Vitrified Pipe Sewer.
- 1078 Lin. Ft. 10" Vitrified Pipe Sewer.
- 10430 Lin. Ft. 8" Vitrified Pipe Sewer.
- 5686 Lin. Ft. House Connection.
- 88 Manholes.

and other miscellaneous work incidental to the above, will be received until 11 A. M. WEDNESDAY, January 31st, 1923.

Proposals must be made in duplicate and must be addressed to the Board of Awards and sent to the Office of the City Register, City Hall, Baltimore, Md., accompanied by a certified check of the bidder for one thousand dollars (\$1000.00) on a clearing-house bank, drawn to the order of the Mayor and City Council of Baltimore.

Right is reserved to reject any and all bids.

Bond in the amount of the contract price will be required for the proper performance of the contract.

Specifications and plans may be obtained at the Office of the Highways Engineer, City Hall, Baltimore, Md., on the payment of five dollars (\$5.00), which will be refunded upon the return of the specifications and plans in good condition.

CHARLES F. GOOB,
Highways Engineer.
A. E. CHRISTHILF,
Chief Engineer.

Approved—
WM. F. BROENING,
President Board of Awards.
Approved—
FRANK DRISCOLL,
Assistant City Solicitor.

Bids close January 31, 1923.

Sanitary Sewers

DEPARTMENT OF PUBLIC IMPROVEMENTS,
SUB-DEPARTMENT OF HIGHWAYS
ENGINEER,

Baltimore, Md., Jan. 17th, 1923.

SEALED BIDS OR PROPOSALS FOR THE CONSTRUCTION OF SANITARY SEWERS IN DISTRICT G-14, as outlined in Sanitary Contract No. 196, comprising approximately:

- 1518 Lin. Ft. 18" Vitrified Pipe Sewer.
- 945 Lin. Ft. 12" Vitrified Pipe Sewer.
- 1804 Lin. Ft. 10" Vitrified Pipe Sewer.
- 18224 Lin. Ft. 8" Vitrified Pipe Sewer.
- 12984 Lin. Ft. House Connections.
- 106 Manholes.

and other miscellaneous work incidental to the above, will be received until 11 A. M. WEDNESDAY, January 31st, 1923.

Proposals must be made in duplicate and must be addressed to the Board of Awards and sent to the Office of the City Register, City Hall, Baltimore, Md., accompanied by a certified check of the bidder for one thousand seven hundred and fifty dollars (\$1,750.00) on a clearing-house bank, drawn to the order of the Mayor and City Council of Baltimore.

Right is reserved to reject any and all bids.

Bond in the amount of the contract price will be required for the proper performance of the contract.

Specifications and plans may be obtained at the Office of the Highways Engineer, City Hall, Baltimore, Md., on the payment of five dollars (\$5.00), which will be refunded upon the return of the specifications and plans in good condition.

CHARLES F. GOOB,
Highways Engineer.
A. E. CHRISTHILF,
Chief Engineer.

Approved—
WM. F. BROENING,
President Board of Awards.
Approved—
FRANK DRISCOLL,
Assistant City Solicitor.

Bids close January 27, 1923.

U. S. Engineer Office, Florence, Ala.—Sealed Proposals will be received here until 11 A. M. January 27, 1923, and then opened, for the construction and delivery of four steel barges. Further information on application.

Bids close February 14, 1923.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C. January 19, 1923.—SEALED PROPOSALS will be opened in this office at 3 p. m., Feb. 14, 1923, for the installation complete of three full magnet control electric elevators and one electric food lift, for the U. S. Veterans Hospital, Chelsea, N. Y. Drawings and specifications may be obtained at this office in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Supervising Architect.

Bids close February 1, 1923.

Drainage Work

Sumner, Miss.

Sealed bids will be received by Commissioners Upper Quiver River Drainage District at the office of Hays, Stingly & Whitten, Attorneys, Sumner, Mississippi, until twelve o'clock noon February 1st, 1923, for excavation of canals and clearing channels.

Approximately 25 miles, 869,000 cubic yards floating dredge work;

Approximately 3.2 miles, 586,600 cubic yards large dragline work.

Approximately 30 miles, 791,800 cubic yards small and medium dragline work.

Form of proposal, instruction to bidders, approximate quantities, bidding blanks plans and specifications and contract may be seen at the office of the Engineers; or copies may be secured from the Engineer at the price of twenty dollars (or three dollars for specifications and map of district) which will be returned, on return of plans, to bona fide bidders on the work.

Certified check for two (2) per cent of total amount shall accompany each bid. Bond required with contract, twenty five per cent.

The right is reserved to reject any and all bids.

For further information apply to H. L. French, Engineer, Sumner, Miss., or A. L. Dabney, Consulting Engineer, Memphis, Tenn.

Commissioners Upper Quiver River Drainage District,

By M. P. STURDIVANT
President.

Bids close February 7, 1923.

Dredging and Making Fill

Department of Public Improvements, Sub-Department-Harbor Board Baltimore, Md. McCOMAS CONTRACT No. 1

Proposals for dredging and making fill at the proposed McComas Street Bulkhead, Baltimore, 1923.

Proposals for dredging and making fill

at the proposed McComas Street Bulkhead, Baltimore, will be received until 11 o'clock a. m., February 7th, 1923. Approximate quantity of dredging 1,300,000 cubic yards.

Proposals must be in duplicate, addressed to the Board of Awards, and sent to the City Register's Office, City Hall, Baltimore, accompanied by a certified check of the bidder for \$5000 on a Clearing House Bank, drawn to the order of the Mayor and City Council of Baltimore.

The right is reserved to reject any or all bids.

A bond in the amount of the contract price will be required for the proper performance of the contract.

Specifications may be obtained at the office of the Harbor Board, Recreation Pier, Broadway.

BANCROFT HILL,
Harbor Engineer

APPROVED:

A. E. CHRISTHILF,
Chief Engineer.

APPROVED:

WM. F. BROENING,
President Board of Awards.
FRANK DRISCOLL,
Asst. City Solicitor.

Bids close February 5, 1923.

Concrete Culverts

Whiteville, N. C.

The Board of County Commissioners of Columbus County, North Carolina, will receive bids at the Court House in Whiteville N. C. up to 2 P. M. Feb. 5th, 1923, for the construction of two Concrete Box Culverts on the Whiteville & Tabor Road.

Plans and specifications may be seen at the Office of the Register of Deeds of Columbus County.

The Board of County Commissioners reserve the right to reject any or all bids.

By order of the Board of County Commissioners of Columbus County N. C.

A. W. BALDWIN,
Clerk to Board.

Bids close February 6, 1923.

Road Machinery

Titusville, Fla.

Separate bids or proposals will be received by the Board of County Commissioners for Brevard County, Fla., at the Court House, Titusville, Fla., on Tuesday the 6th of February 1923, at 2 P. M., for furnishing new or second handed the following road machinery,

1—Ten Ton Roller with Scarifier Attachment.

1—Road Grader with 9'ft. blade.

1—Heater and Pressure Distributor mounted or to be mounted upon motor truck or trailer. Capacity 600 gallons.

Bids to include freight charges on each article delivered in Cocoa, Fla.

The Board reserves the right to reject any or all bids, or purchase any one machine above mentioned.

A. F. HARLEY, N. T. FROSCHER,
Engineer. Cocoa, Fla. Clerk, Titusville, Fla.

Bids close February 20, 1923.

School Buildings

Montgomery, Ala.

Sealed proposals will be received until twelve o'clock, noon, February 20, 1923, at the office of the Board of Education, of the City of Montgomery, Montgomery County, Alabama, for the erection and completion of a Two-Story Brick School Building, with part basement, located on Goode Street, in the City of Montgomery, Alabama according to plans, specifications and details formulated and prepared by Frederick Ausfeld, Architect, 301 Bell Building, Montgomery, Alabama, and for the erection and completion of a Two-Story Brick School Building, with part basement, located at the head of Forest Avenue, Oak Park, in the City of Montgomery, Alabama, according to plans, specifications and details formulated and prepared by Okel & Cooper, Architects, Vandiver Building, Montgomery, Alabama.

To insure consideration, each bid must be accompanied by a certified check in the amount of five per cent of the bid on each building, on a National Bank or State Bank, and made payable to L. C. Cardinal, Chairman, Board of Education, as a guarantee of good faith, in that the contractor will enter into a contract and will make bond in the sum of Twenty Thousand Dollars (\$20,000.) on each of the buildings in a Surety Company doing business in the State of Alabama, for the faithful performance of the work in accordance with the plans and specifications, and for the amount of his bid.

The certified check must be signed by an authorized official of a National Bank or State Bank, and the bond required must be filed with L. C. Cardinal, Chairman, Board of Education, within ten days after award of contract. This check is to be forfeited as reasonable liquidated damages in case the contractor fails or refuses to sign contract and make bond within the time stipulated above.

The contractor will be permitted to file with his bid, in lieu of the certified check, a bid bond in the amount of five per cent on the amount of his bid.

Bids will be received on one or both buildings, including plumbing, heating and electric wiring, but the contractor must state separately the cost of plumbing, cost of heating and cost of electric wiring, each of which may be let separately.

The Consulting Architect will forward proposal blanks to each bidder.

Both buildings must be completed on or before the Twentieth (20th) day of August, 1923.

Plans, specifications and details for both buildings are on file and can be obtained at the office of Frederick Ausfeld, Consulting Architect, 301 Bell Building, on or after February 1st, 1923, upon the payment of \$8.50 for each set of plans and specifications, which must be returned to the office of the Consulting Architect on or before the date and hour set for the opening of the bids.

The Board of Education reserves the right to reject any and all bids and to waive any informality in the filing of any bids.

CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS WATER POWERS, MISCELLANEOUS PROPERTIES

Wealth in virgin coal fields in Northern Alabama, near Tennessee River. Ready to mine with electric equipment; entries driven. Superior domestic, steam and gas coal; unsurpassed in the South as an export coal. Iron ore, fire-clay, cement rock and limestone in vast quantities. Five million feet of Poplar Oak and Hickory timber on property. Industrial railroad connecting with Southern Ry. system. Soil overlying 16,000 acres, ideal for cattle, sheep and Angora goats and for fruit raising. For full particulars, price and terms, write F. D. Pierce, 1505 E. Genesee St., Syracuse, N. Y.

FOR SALE — 2500 acres unimproved coal and farming land, \$35 per acre; has several seams; top seam drift; adjacent railroad, mines, gas wells and prospecting oil. Write J. E. Cavanagh, McAlester, Okla.

MINERAL AND TIMBER LANDS, ETC.

Colonial estate, farms, timber, coal, camps, game-preserves, health-resorts, grazing lands, sub-divisions, colonization. Willis & McNeil, General Real Estate, Rockymount, Virginia.

FOR SALE or lease, Portland cement, talc, feldspar, chrome, ochre, kaolin, mica, manganese and iron properties. Near R. R. best in the South. H. D. Russell & Co., Fletcher, N. C.

FOR SALE—One of the best mica mines in the state. Thirty-five minutes from Asheville, one of the largest markets. Fully developed. Enough shipping ore in sight to pay from the start. Dr. O. L. Suggett, Asheville, N. C.

MINERAL AND TIMBER LANDS, ETC.

GOLD AND SILVER MINE.

Elderly man just came into possession valuable mining property upon which about \$50,000 already spent in development, including small mill. Party too old to operate.

Stock Company of \$1,000,000 already organized, and goes with property. Mine is located in New Mexico.

Owner will exchange for any real or personal property showing reasonable value, with small amount of cash. D. M. F. 3200 FRANKLIN BOULEVARD, Chicago, Ill.

FULLERS EARTH

FOR SALE: Two hundred acres of Fullers Earth land in Manatee County located quarter of mile from Atlantic Refining Co. plant close to two railroads and water transportation. Will be sold at a sacrifice price. For information, Post Box 2521 Tampa, Fla.

MINERAL AND TIMBER LANDS WATER POWERS, MISCELLANEOUS PROPERTIES**HARDWOOD FARMS AND OIL**

Choice Virgin Timber
Twenty million feet Red River bottom land, virgin hardwoods, ash, oak, cypress, red gum and hickory predominating; located on three main line railways. All the year logging; not subject to overflow; plenty of labor. Additional timber adjoining.

Going Farms

Nine hundred acres in cultivation, on gravel roads, two miles from towns, schools and churches; divided into three well-drained farms of 300-acres each, two farms being highly improved, possessing residences large barns, 20 cabins, deep well, 214-ton silo feeding and machine sheds, two tractors, pair six ton scales, corn mill, feed grinder, manure spreader, seed fanning mill and complete equipment of farm implements in perfect condition. Also hundred cattle, registered bulls, stallion, hogs and sheep. Land produces alfalfa, clover, cotton and corn. Four tons alfalfa and three-eighths of a bale of cotton per acre this year's average production. Farms ideally located for logging bases.

Oil

Oil lease on half of total area of 5006 acres, all of which is prospective territory.

Terms

Timber alone \$127,826.00 removal within seven years.

Entire area in fee completely equipped, \$210,000.00 in seven annual payments. H. V. MOSELEY, Owner, ALEXANDRIA, LA

MANGANESE PROPERTY

I have a large tract of Manganese Ore, this is a vein ore, not pocket, 1150 acres, and as duty on Manganese ore from foreign countries is \$12.00 per ton, good opportunity for parties interested. J. E. Hill, 1212 North 12 Court, Birmingham, Ala.

WATER POWER SITE WANTED**WATER POWER SITE WANTED**

Engineer wishes to get in touch with owner of water power site and location for cotton mill.

Address 'ENGINEER'

Room 405, No. 500 Fifth Ave., New York.

IRON ORE LAND

Parties desiring to purchase mountain land rich in iron ore, testing at least 60% will communicate with D. L. Breeden, Rocklin, Va.

COAL LANDS AND MINES

FOR SALE—Going coal mines—coal, oil and gas lands—timber tracts. Reports made on same anywhere. E. H. Morris, Box 518, Charleston, W. Va.

Northern West Virginia mine for sale. 800 acres Upper Freeport with operating mine is offered for sale to responsible buyer. Coal takes low eastern rate. Present capacity 200 tons per day. Address Box 128, Kingswood, West Virginia.

FOR SALE—Operating Coal Mine on Southern Railway System in East Tennessee. Non-Union mine, electric haulage, good steam coal, advantageous freight rates both north and south. Now producing 150 to 200 tons daily; can be increased. W. A. Patton, Mining Engineer, Coalmont, Tenn.

COAL AND TIMBER LAND

20,000 Acres coal lands in fee, located on the North Fork of Kentucky River; thoroughly prospected; title guaranteed; report by Clark & Krebs; also another tract of 23,000 acres virgin timber located in Letcher County, Kentucky; cruisers report shows 156,000,000 feet merchantable saw timber. U. S. G. Anderson, Huntington, West Va.

TIMBER AND TIMBER LANDS

Fourteen Thousand acres of hardwood timber land for sale at greatly reduced prices in several tracts.

Extra fine Oak, Poplar, Chestnut and some white pine. Forced sale. Write at once. Address 6119 care of Manufacturers Record, Baltimore Md.

FARM AND TIMBER LAND

FLORIDA—Timber, Colonization and Fruitland tracts any size; best in Florida. MAURER & COMPANY, Orlando, Fla.

FARM, FRUIT, AND TRUCK LANDS**FLORIDA**

FLORIDA—Did you know that Florida is developing faster than any other State in the Union? It is, indeed, a land of great resources and opportunities. Come and be one of us. No coal bills, no wintry ice or snow—just sunshine, and health, and opportunity. Send for booklet "Largest Orange Tree in the World;" we have a Home, Grove or Farm for you. Tampa-West Coast Realty Co., (Inc.), opposite Post office, "Since before the War," Tampa Fla.

PASCO COUNTY—Lakeview bearing grove with first-class new bungalow and buildings, high healthful location, fertile soil. Other groves, homes, lands. R. P. Evans, Dade City, Fla.

GEORGIA

BRYAN CO., GA.—FOR SALE—Two adjoining farms and Game Preserves. Acres 3350. Beautiful Water front location, ideal for club house. Historical spot of the place is Fort Mc Allister. Fine for truck farming. Good fishing, including shad fishing and oyster grounds. Fruit grows, well; have sweet and sour oranges. Six flowing wells. Write for prices and particulars. S. S. SASSER, Ways Station, Ga.

NEW MEXICO

NEW MEXICO cattle or sheep ranch, 45,300 acres, \$2.75 per acre; also, other ranch bargains. C. E. McGINNIS, Roy, New Mexico.

SOUTH CAROLINA

Truck farms that pay dividends annually can be bought at reasonable prices here. Vegetables are shipped eight months in the year. Three and four crops are grown on the same land annually. Excellent climate and health. Plenty of labor; strikes unknown. Well organized association that sells all farm products. For particulars write, Lake Realty Company, Beaufort, S. C.

BUSINESS OPPORTUNITIES

FOR LEASE—Office space in Rhodes Building and loft space in adjoining connecting building, fireproof, steam heated, on main thoroughfare, three blocks from center of city, especially adapted to Manufacturer's Agents, carrying stocks or samples. Let us furnish particulars as to service rates, etc. A. G. Rhodes & Son, 202 Rhodes Building, Atlanta, Ga.

FOR SALE—Hotel building, thirty rooms, newly furnished, doing good business now, will not lease. Will sell building and furniture and business only. Address I. C. Holt, Exchange Hotel, Macon, Ga.

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Washington, D. C.

M. B. HARLOW

Harlow Building, Colorado Building, Alexandria, Va. Washington, D. C.

RECEIVER'S SALE

I Will at Noon on the 5th day of February, A. D. 1923, sell at Public Auction, for cash, in Brooksville, Florida, 23,491 rough turned baseball bats; and 67,731 Billets, all made from second growth ash timber V. V. Coogler, Receiver.

ADVERTISE to 6,000,000 newspaper readers. \$10; list free; pamphlets, etc., written expert sales assistance for manufacturers. VYLE, Two East 23rd., New York.

PRINTING

VOUCHER CHECKS 1000 for \$17.50
" " 3000 for \$42.50
Hammermill SAFETY Paper Used. Send today for specimen check and paper.
The Quality Printery Hot Springs, Ark.

FINANCIAL**SOUTHERN****MILL STOCKS****BANK STOCKS****BONDS.**

25 years' experience in this field.

F. C. ABBOTT & CO.,

Charlotte, N. C.

BONDS—Can float Industrial issues of One Million Dollars or more for well known corporations having good earnings record. Correspondence solicited. A. W. Johnson, 212 Mass. Bldg., Kansas City, Mo.

FINANCIAL

"An Honest Money System," controlled by our Government, in place of the present dishonest "bank credit" debt manufacturing, banking and currency system, controlled by banking corporations organized for private gain; is the greatest political issue to be decided by the voters. Read "Daniel on Real Money," the best text book solving the money question. New edition being published. The Monetary Educational Bureau, Kellogg Building, Washington, D. C.

COLLECTIONS

Past due accounts collected promptly on commission basis—send us statements—no collection, no charge. Remit on day of collection. Rate card on request. Correspondents in all cities. Herbert & Co., Rand McNally Building, Chicago, Ill.

INDUSTRIES WANTED**HARD SURFACED ROADS**

Will be constructed on a large scale in Missouri this Spring. The principle concrete highway across the State passes directly through Boonville, Missouri, only. Opportunities offered for those interested furnishing materials or construction to locate in Boonville, address Chamber of Commerce.

COTTON MILL LOCATION

Cotton mill site offered to any one to establish mills in Camp Hill, Alabama. High class labor at reasonable prices plentiful; Electric power furnished by ALABAMA POWER COMPANY; Good water supply; good citizenship; located in the heart of the cotton belt.

The Chamber of Commerce, Camp Hill, Ala., Luther Land, Secy.

Textile and paper mills wanted. Ideal location, abundant supply raw material, efficient cheap labor, cheap fuel, splendid labor conditions. Write Chamber of Commerce, Laurel, Mississippi.

PONCA CITY, OKLA., offers financial assistance to worthy industries that can stand investigation. Has abundance of splendid water, sites and longtime fuel oil contracts; also natural gas. On main line Santa Fe railroad between Kansas City and Gulf. Population 12,000. Address Chamber of Commerce, Ponca City, Okla.

INDUSTRIAL PLANTS

FOR SALE: NEW MODERN FORTY TON ELECTRIC ICE MAKING PLANT located in one of the best cities in the South, making the finest quality of ice. Selling the entire output at factory door. Has latest and best ice making equipment built, operation since May 1st 1922. Splendid brick building. Paying handsome dividends. Reason for selling owner desires to go to India. Address: J. S. Johnston, 191 Marietta St., Atlanta, Ga.

FOR SALE—Combined Planing and Saw Mill in Ontario, 70 miles East of Detroit, Mich.—Pine and Hardwood—General Contracting—Good Town—Three Railroads—Business Good Year Round—Thirty Men—Priced to Sell—for particulars address—Colin Reid, Bothwell, Ontario.

FOR SALE OR LEASE—A salt plant capable of producing 300 barrels daily with small improvements; located on the Ohio River. River or railway shipment. We do not know the salt business, therefore this advertisement. Only those meaning business need apply. S. A. Moore, Box 407, Charleston, W. Va.

FACTORY SITES**FACTORY SITES**

FOR SALE—We have several fine Factory Sites in the Muscle Shoals District with its rich resources for manufacturing iron, steel, concrete, wooden and cotton goods—and hydro-electric power. Water transportation. Write to: J. D. WEEDEN & COMPANY, Florence, Alabama.

Factory sites offered at small prices, special rates to first applicant. Near two big markets, Southern Railroad. Advantages to a Paper Factory, soft water, abundant wood. Information Apply Box 158 Charles Town, W. Va.

FACTORY SITES

BALTIMORE
FACTORY
SITES

William Martien & Company,
1413 Lexington Bldg.,
Baltimore, Md.

MR. COTTON MANUFACTURER

are you looking for a location, mild climate, 2½ per kilowatt, electric current, good supply of labor, seven railroads, where you can secure raw material from Arkansas, Oklahoma and Texas at minimum freight cost, city of 35,000 inhabitants, two-story frame building in good condition, 90,000 feet floor space, ten acres of land, two switches, half block of street car line and interurban one mile from heart of city? If interested, communicate with MOUNT OLIVE STAVE CO. Batesville, Arkansas.

PATENT ATTORNEYS

INVENTORS—Send sketch or model of your invention, for opinion concerning patentable nature, and exact cost of applying for patent. Book, "How to Obtain a Patent" sent free. Gives information on patent procedure and tells what every inventor should know. Established 25 years. Chandler & Chandler, 412 7th St. N.W. Washington, D. C.

PATENTS, TRADE-MARKS AND COPYRIGHTS—Write for our Free Illustrated Guide Book and EVIDENCE OF CONCEPTION BLANK. Send model or sketch and description of your invention for our opinion of its patentable nature free. Highest references. Prompt service. Reasonable terms. Victor J. Evans & Co., 712 9th St., Washington, D. C.

PATENTS—Booklet free. Highest references. Best results. Promptness assured. Watson E. Coleman, Patent Lawyer, 624 F St., Washington, D. C.

PATENT SENSE

"The Book of Inventors and Manufacturers." FREE. WRITE LACEY & LACEY, Dept. 15, Washington, D. C. Est. 1869.

AGENCIES WANTED

WANTED—Manufacturers selling agency for hardware and tools to sell to establish hardware and painters trade in Metropolitan and New Jersey territories. Address No. 6118 care of Manufacturers Record, Baltimore, Md.

SITUATIONS WANTED

AN experienced sawmill man, 15 years at trade, desires position in good territory; married, sober; prefers location near school. Write H. W. Burke, Lela, Ga.

"WANTED. Position as auditor, Office Manager or Secretary of manufacturing concern by man of considerable experience in accounting, auditing, systematizing and cost accounting. Now employed as Auditor. Would prefer to buy interest or stock in successful company but would demand investigation. Can give best of references as to ability and character. Address No. 6120 Care Manufacturers Record."

Sales Engineer seeks opening where twelve years of experience as General Manager, production engineer, merchandising, liquidating and appraising can be used to mutual advantage. Age, 37, health good, Graduate Mech.-Elec. Engineering, Yale 1910. Publicity, advertising and selling, N. Y. U. 1912. Business Administration Tech. 1919. Since 1917 in Government employ organizing and supervising disposal surplus machine tools War Department. Reorganizing and supervising division in Shipping Board for disposing of surplus materials and ship yards, and for the disposition of surplus Navy War Materials.

Available immediately for position of sales and advertising manager or assistant to chief executive where there is ample room for expansion. Salary \$6000 with opportunities for doubling by commissions or bonuses. Prefer to locate in good, live and growing community. No objection to traveling part of time. Address No. 6121 care Manufacturers Record, Baltimore, Md.

MEN WANTED

SUPERINTENDENT—General Contractors doing extensive building through the Southeast will be interested in communicating with one or two building superintendents with a view to increasing organization. Man wanted must have thorough knowledge of building construction, have good personality, be familiar with labor conditions in the south and be able to give unquestionable references as to ability and reputation. Man thirty to forty years of age preferred. Address No. 6117 care of Manufacturers Record, Baltimore, Md.

MEN WANTED

Salaried positions \$2500 to \$25,000 upward; executive, technical, administrative, engineering, manufacturing, professional managing, financial, etc., all lines. If you are qualified, and receptive to tentative offers for a new connection, you are invited to communicate in strict confidence with the undersigned, who will conduct preliminary negotiations for such positions. A method is provided through which you may receive overtures in confidence, without jeopardizing present connections, and in a manner conforming strictly to professional ethics. Send name and address only; preliminary particulars will be sent without obligating or compromising you in any way. R. W. Bixby, Inc., 403 Lockwood Building, Buffalo, N. Y.

"Wanted—Sales Engineer with experience in Concrete and Steel design. Position permanent. Remuneration in proportion to ability and results obtained. Furnish photograph, past experience, and also age. Apply—Southern General Fireproofing Co., 263 Decatur St., Atlanta, Ga."

EXECUTIVES

Qualified men—Technical, Commercial or Manufacturing—seeking new positions and our effective and confidential service extremely satisfactory. Our Mr. H. H. Harrison can negotiate a suitable connection for you as he has done for thousands of others since 1909. Inquiries invited; confidences respected.

THE NATIONAL BUSINESS BOURSE, Inc.
Confidential Negotiators
Association Building, Chicago.

MACHINERY AND SUPPLIES

FOR SALE—1-6 ton sterling Ice Machine direct connected to Steam Engine, good as new, only run nine months. 1-60 H. P. return tubular boiler, good condition. Cold Storage Power Co., Clarendon, Texas.

Drills, "Cleveland" wire gauge, S. S. Carbon Brand new in original packages. Sizes in stock, Nos. 38, 39, 46, 48, 49, 50, 52, 53 & 55. By parcel post prepaid. Price Standard List Prices, Less 70 per cent. In lots of 1000 doz., or more, Less 75 per cent. Wire, Pratt Thompson, 220 E. Lexington St., Baltimore, Md.

MACHINERY AND SUPPLIES WANTED

Wanted—Two granite surfacing machines. Flat Rock Quarries, 1405 Citizens' & Southern Bank Building, Atlanta, Georgia.

SPECIAL ADVERTISEMENTS
OF GENERAL INTEREST

The Charleston Chamber of Commerce
Requires the Services of a Secretary

One having had experience with Port Development work preferred.
When applying furnish all references and full data as to experience.

Address: H. F. BARKERDING,
Chairman Committee Chamber of Commerce
CHARLESTON, S. C.

Contractors and Manufacturers
TIME CHECKS



We Make Them Promptly. Headquarters for Seals, Stock Certificates, Stencils, Steel Dies, Brass Signs, Enamel Plates, Memorial Plates, Church Seals and Pew Plates. Made on our Premises. Send for Catalogue.

THE J. F. W. DORMAN COMPANY
BALTIMORE, MD.

THOS. E. GRADY & CO., Inc.

INDUSTRIAL TRAFFIC MANAGERS
AND COUNSELLORS

Representing capital in excess of \$200,000,000.

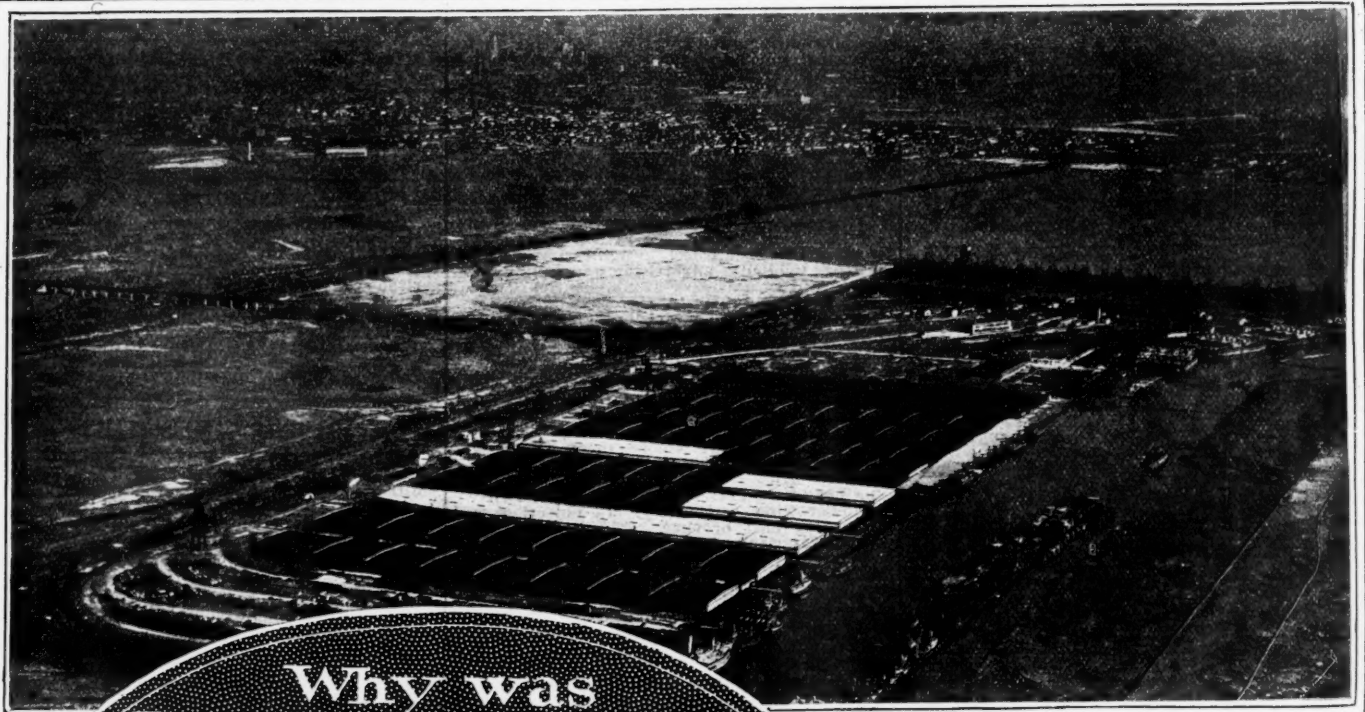
Our clientele composed of more than 3000 shippers and receivers of freight in the South—

We are the largest Traffic Organization in the South—Our facilities are such as to render you the best service at all times.

We handle all traffic and transportation matters on contract basis—Correspondence Solicited.

ATLANTA, GA. SAVANNAH, GA. COLUMBIA, S. C.
Citizens & Southern Savannah Bank & Liberty National
Bank Building Trust Co. Bank Building
WEST PALM BEACH, FLA., American National Bank Bldg.

Port Newark

Aerial view of U. S. Army Supply Base, Port Newark, N. J.

Why was
Port Newark chosen
as the site for an
Army Supply
Base for the
A·E·F
?

For the same
reason that will sell it
to-day to some Great In-
dustry -
Exceptional Shipping
Facilities



*Illustrated
Booklet of Property
Sent on Request—Write!*

WAR DEPA

Base for Sale

Huge ocean-rail warehousing development to be offered by Sealed Bids, March 1st.

WHEN the cry "Men—more men!" was coming to America from the battlefields in France—

When every resource of the nation was being strained to hurry forward men and munitions in answer to that call—

When industry, under the whiplash of war, was rushing munitions to the Atlantic seaboard in daily trainloads—

Suddenly there developed a sinister shortage of ocean terminals.

Where to handle this avalanche of war materials—where to load them into ships for delivery in France—was the problem confronting the Government.

Port Newark was one of the answers to that riddle.

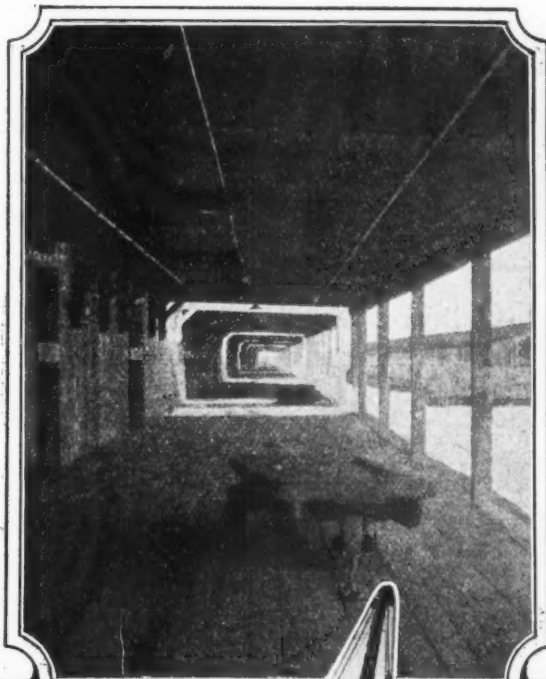
That was but five short years ago, and the same Port Newark base that met the Government's emergency is awaiting your purchase—awaiting the word that will set it to meeting *your* problem.

All of its outstanding features, such as SITUATION, FACILITIES, IMPROVEMENTS and EQUIPMENT are enumerated in a profusely illustrated Booklet, which also specifies the Terms of Sale and gives detailed information. Booklet sent free on request.

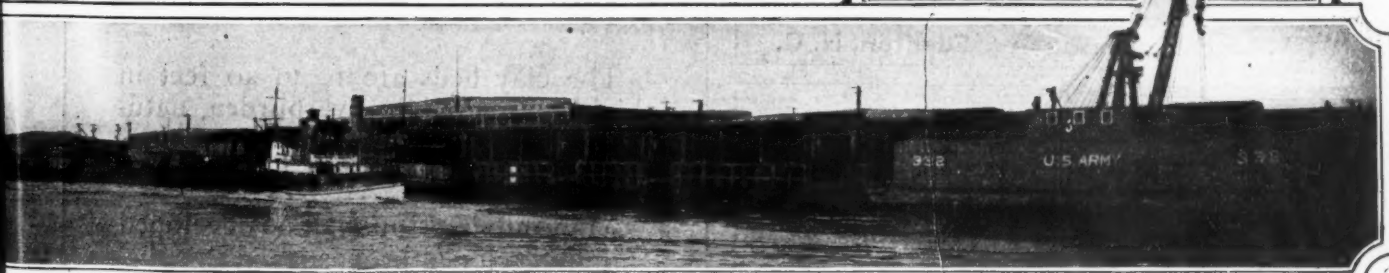
Sealed Proposals will be opened on March 1st. in the office of the Quartermaster General, Room 2024 Munitions Bldg., Washington, D. C. The Booklet and Proposal Blanks may be obtained at this office or either of the

two following addresses: Quartermaster Supply Officer, 1st. Ave. & 59th. St., Brooklyn, N. Y.; Quartermaster on the premises at Newark, N. J.

The Government reserves the right to reject any or all bids.



*Lower view—Channel and Docks.
Right—Typical loading platform at warehouse.*



PARTMENT

MARION OHIO

An ideal city for business or industry—peopled with native-born, home-owning folks.

Best of living and housing conditions, in a healthy American community.

Good schools, churches, parks and playgrounds—paved streets and highways.

Plenty to entertain and amuse but nothing to distract.

Locate your industry in Marion and have a happy, contented corps of workers with ideal shipping and manufacturing conditions.

Five Railroads
Two Electric Lines
Large Power Plant
Low Power Rate
Good Water Supply
Rich Farming Community
Good Shopping Centers
Adequate Housing
High-grade Schools
Ideal Labor Conditions
Direct Transportation to all large centers
Industrial acreage available on all railroads.

For Detailed Information Write

K. T. CRAWLEY, Manager
Industrial Dept. of Chesapeake & Ohio Railway
Richmond, Virginia

GOING BUSINESS—FOR SALE

Fully Equipped Manufacturing Plant

Making an established line of plows, harrows, cultivators, etc. Located in Southwestern Ohio. Two railroad sidings. 85,000 sq. ft. floor space. 3½ acres land. Brick buildings. Will sell plant and business separately.

The Long & Allstatter Co., Hamilton, Ohio

HOSIERY MILL

FOR SALE OR LEASE

The Edenton Hosiery Mills, Edenton, N. C. offers its entire plant consisting of, buildings, machinery &c. Mill equipped with Wildman, Scott & Williams, Steady Dial and Dye Machinery, all electrically driven and ready for use. Open for inspection. Offers will be received until February 10th, 1923.

W. A. Leggett, Chairman Edenton, N. C.

FOR SALE

A STEEL FRAME CONSTRUCTION DAYLIGHT BUILDING

293' x 74½'

This building is brand new, Blueprints will be furnished and inspection may be made at the Aberdeen proving grounds, upon application to

UNITED IRON & METAL CO.
CATHERINE ST. and B. & O. R. R.
BALTIMORE, MD.

THE CENTER OF GEORGIA CLAY PRODUCTION

Wilkinson County produces 75 per cent of the clay mined in Georgia.

Almost the whole county is underlaid with commercial kaolins and refractory clays.

The clay beds are 10 to 40 feet in thickness with light overburden, natural drainage, running water and reasonably close to railroad.

Map and description of 66 developed and undeveloped properties in this district mailed on application.

J. M. MALLORY
General Industrial Agent
Central of Georgia Railway Company
SAVANNAH, GEORGIA

McClave 2-A Grates Burn Lignite

-Efficiently and Economically

USERS of lignite, sub-bituminous, low grades of slack, bagasse, or refuse fuels can secure material savings in their boiler rooms with McClave 2-A Grates.

Exceedingly durable under severe service, because of their sound design and construction, McClave Grates are built with small sectional tops that are much less expensive to replace than an entire grate bar.

Of heavy construction, they will easily break up clinker and at the same time are practically non-sifting.

Adequate and even distribution of airspace insures complete combustion and short lines of metal take care of expansion and contraction under the widest variations of temperature.

McClave Grates are fuel, labor and money savers to a degree that will interest you seriously. The reason why is explained more fully in our catalog of McClave 2-A Grates. Where shall we send your copy?

McCLAVE-BROOKS COMPANY

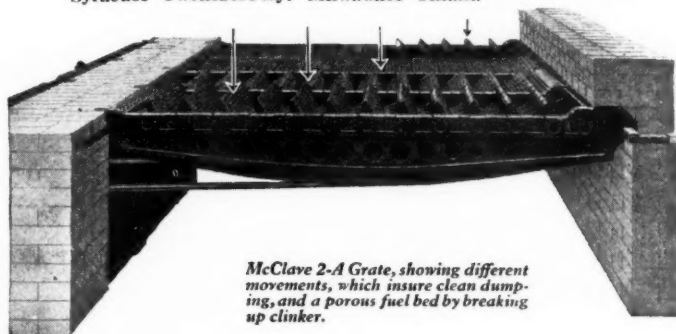
Sole makers of the famous McClave Grates since 1883
Scranton, Pennsylvania

BRANCH OFFICES:

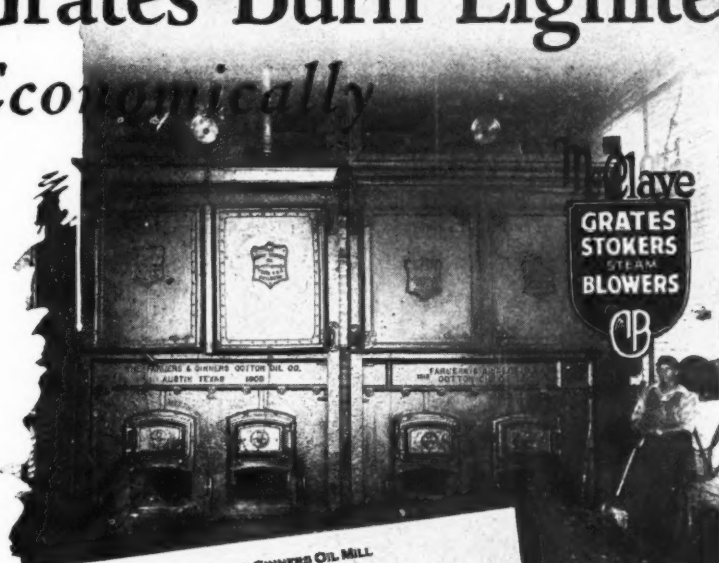
New York Chicago Philadelphia Pittsburgh
Boston Dallas Greenville, S. C.
Memphis Detroit Greensboro Salt Lake City
St. Louis Topeka St. Paul
Syracuse Owensboro Ky. Milwaukee Omaha

Other
McClave
Products

Mechanical
Stokers
Hopper Feed
Hand Stokers
Hand Stokers
Shaking Grates
Cut-Off Grates
Dumping Grates
Round Grates
Boiler Fronts
Argand Blowers



McClave 2-A Grate, showing different movements, which insure clean dumping, and a porous fuel bed by breaking up clinker.



FARMERS AND GINNERS OIL MILL
COTTONSEED PRODUCTS
AUSTIN, TEXAS

September 8th, 1922.

McClave-Brooks Company,
Scranton, Pa.
Gentlemen:

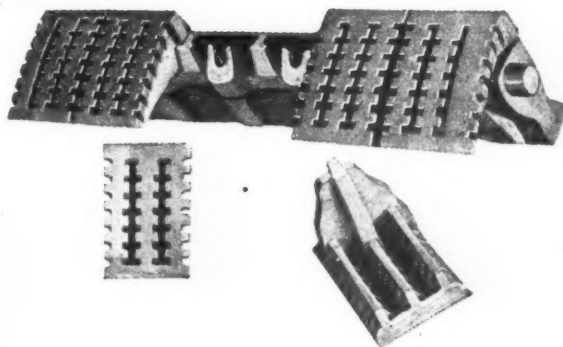
Replying to your inquiry regarding McClave grates installed in our Austin Mill and some of our gin plants during the past three or four years.

We have gotten very satisfactory results and service from these grates in both our mill and gin plants at which we have been using lignite. Use of these grates in every instance resulted in a material saving in fuel and we have found them very economical in upkeep. In fact, we have had no expense in connection with any of our installations with the exception of a few minor parts for the grates in our Austin Mill after they had been used through three seasons.

Our experience fully justifies us in recommending the McClave Grates and we feel sure they will show a material saving over the plain type of grates commonly used.

Yours very truly,

H. H. Hunsicker
Manager.



The McClave 2-A Grate Bar with two sectional tops removed. Note reinforcing ribs in grate bar, on shanks and on underside of sectional tops.

McClave COMBUSTION SYSTEMS *for greater economy*

THIS ADVERTISEMENT IS REPEATED BY REQUEST



PRESIDENT

PLANT ENGINEER

CONSULTING ENGINEER

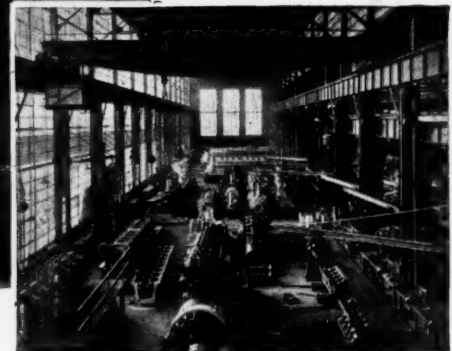
PRODUCTION MANAGER

Dramatized Facts out of
The Day's Work

No. 10

Where the facts come from

At the Winton Engine Works, Cleveland, pictured below, a Grinnell Forced Circulation Hot Water System heats a large part of the plant from the waste heat of gas engines. Mr. W. S. McKinstry of The Winton Company, writes: "The uniform temperature made possible by your system has contributed in a large measure to the satisfied feeling of our men which is evidenced by a very low labor turnover." Ernest McGeorge, and A. G. Simon, Consulting Engineers.



Prize Money— and the Old Engineer's Boy

"Oh, that's the same old idea you sprang five years ago. Tom," said the President as he laid a friendly hand on the old engineer's shoulder. "I'm sorry, but the prize money for coal saving suggestions *must* go to those whose ideas are more practical."

"But—" the old man started falteringly to explain, when the Production Manager cut in with, "Why, that idea came from his boy the year he was getting through 'Tech.' That waste heat wouldn't generate an ounce of steam. The boy himself would laugh at it today."

"But my boy—" began the old man again.

"What was this college boy's idea?" interrupted the Consulting Engineer, who had consented to help in awarding the prize money.

"Well," began the President, with a curious mixture of boredom, impatience and pity in his voice, "Tom here wants us to rig up our heating system to pick up heat all over the plant, from tempering furnace, steam vats, heat treating processes—"

"And he even wanted to connect up with the water jackets of our gas engines—" broke in the Production Manager, with a smile that just escaped being a sneer.

As much as he needed the prize money—as much as he valued his job—the old engineer couldn't restrain himself. They were really poking fun at his boy. He burst out with—

"My lad knows. He's been at heating now five years. He's smart. He's studied. He wouldn't tell me this could be done, if it couldn't. He's—"

"Where's your boy located?" inquired the Consulting Engineer with an encouraging smile.

"He's with Grinnell Company," came the reply proudly, "an engineer."

"I'll bet you the best dinner in town you give Tom the prize money," said the Consulting Engineer as he turned to the President. "If a Grinnell Engineer says he can pick up waste heat, he'll *pick it up*. In the Winton Plant in Cleveland Grinnell Company heated a great building from the waste heat of gas engines."

"Why it's nothing but a *theory*," countered the Production Manager. "How could you get up steam pressure when most of your jackets won't boil water?"—

"No, but they will heat any amount of water for a forced hot water system. With Grinnell Company you get a system that is a fact—not a theory—and a fact they back with their guaranty."

"Tom, I guess you win," said the President. "Have your boy drop in to see me."

GRINNELL GUARANTY

At any time we will send to any plant a competent engineer to make a study of conditions and report on modernizing heating, power or process equipments. Approved by our engineering board, such findings form the basis of our well-known guaranty of performance—a *courageous guaranty of ideas, men and materials.*

Send for our booklet, "Five Factors in Heating Costs." Address Grinnell Co., Inc., 302 W. Exchange St., Providence, R. I.

GRINNELL COMPANY

Automatic Sprinkler
SystemsSteam and Hot Water
Heating EquipmentHumidifying and
Drying EquipmentFittings, Hangers
and ValvesPipe Bending,
Welding, etc.Power and
Process Piping

If it's Drying, take it up with us

